ALAN AGRESTI

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1632 NW 24th Street
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Department of Statistics
University of Florida
Gainesville, FL 32611

Personal Information

Born February 6, 1947,   Syracuse, New York

Education

B.A., Mathematics, with distinction, University of Rochester, 1968

M.S., Statistics, University of Wisconsin, 1970

Ph.D., Statistics, University of Wisconsin, 1972
  Minor: Mathematics
  Dissertation title: Bounds on the Extinction Time Distributions of Some Branching
    Processes
  Advisor: Prof. Stephen Stigler

Professional Employment

Distinguished Professor Emeritus, Department of Statistics, University of Florida, 2010 -

Distinguished Professor, Department of Statistics, University of Florida, 2000 - 2010

Professor, Department of Statistics, University of Florida, 1984 - 2000

Associate Professor, Department of Statistics, University of Florida, 1977 - 1984

Assistant Professor, Department of Statistics, University of Florida, 1972-1977

Visiting Associate Professor, Department of Statistics, Oregon State University, Summer 1977
  and Summer/Fall 1979

Sabbatical Visitor, Mathematics Department, Imperial College, London, 1981 - 1982. (Also
  taught course for Birkbeck College, University of London)

Visiting Professor, Department of Biostatistics, Harvard University, fall 1988, fall 2002, fall
  2008

Visiting Professor, Math Department, Boston University, Fall 1988

Visiting Professor, Statistics Department, London School of Economics and Political Science,
  Fall 1995

Short appointments (between two weeks and three months) as visiting professor at IMPA
  (Brazil, 1990), Univ. of Firenze (Italy, 2005), Univ. of Padova (Italy, 1991, 2000, 2009,
  2011, 2015, 2018), Limburgs Univ. (Belgium, 1992), Univ. of Southampton (U.K., 1994),
  Univ. of Paris 7 (France, 1998)

Visiting Professor, Department of Statistics, Harvard University, Fall 2008, 2009, 2010, 2011, 2012, 2013, 2014

Honors and Awards

Honorary Doctor of Science, De Montfort University, Leicester, England, awarded July 14, 1999 for "outstanding international contribution to research and scholarship in Applied Statistics, particularly Categorical Data Analysis."

Fellow, American Statistical Association, 1990

Fellow, Institute of Mathematical Statistics, 2008

Statistician of the Year Award, Chicago chapter of American Statistical Association, 2003

First honoree of Herman Callaert Leadership Award in Biostatistical Education and Dissemination, from Limburgs Universitair Centrum, Diepenbeek, Belgium, May 2004.

Allen T. Craig lecturer, University of Iowa, 2006

University of Florida Research Foundation Professor, 1997-2000

Four times nominated for Teacher of the Year (Univ. of Florida), outstanding teaching (TIP) award winner, 1995

Over 100 invited talks, short courses and seminars around the world, including Australia, Austria, Belgium, Brazil, Britain, Chile, China, France, Germany, Indonesia, Italy, Mexico, Netherlands, Norway, New Zealand, Sweden, Switzerland, Taiwan; keynote addresses for several meetings and symposia including Swiss Statistical Society, French Biometric Society, Statistical Society of Slovenia, Army Applied Statistics Conference, Conference on Applied Statistics in Ireland, International Society of Clinical Biostatistics, CDC annual awards meeting, New England Statistical Society, Italian Statistical Society, and several chapters of American Statistical Association, Charles Odoroff Memorial Lecture at University of Rochester, Clifford Clogg Memorial Lecture at Penn State, Second Annual Statistics and Biostatistics Distinguished Alumni Lecture at University of Wisconsin. (Details later in CV)

2001 award for excellence in writing, John Wiley & Sons

2002 award for Excellence in Continuing Education from ASA for tutorial "Analysis of repeated categorical measurement data" presented at 2002 Joint Statistical Meetings, New York City

Books

Statistical Methods for the Social Sciences (1979), Dellen Publishing Co. (with B. Finlay). 2nd edition 1986, Macmillan Publishing Co., 3rd edition 1997, Prentice Hall (Foreign language version: Wu-Nan Book Co. Ltd., Taiwan), 4th edition 2009, Pearson Prentice Hall (Italian language version also in 2009), 5th edition 2017, Pearson (A. Agresti sole author, Italian translation by A. Petrucci and M. Porcu).

Analysis of Ordinal Categorical Data (1984), Wiley, 2nd edition 2010.

Categorical Data Analysis, (1990), Wiley, 2nd edition 2002, 3rd edition 2013.

An Introduction to Categorical Data Analysis, (1996), Wiley. 2nd edition 2007, 3rd edition 2019. Orthodox Chinese translation published by Chuan Haw Science & Technology Book Co. Ltd., ROC; Korean translation published by Freedom Academy Publishing Co.

Statistics: The Art and Science of Learning from Data (2006), Prentice Hall (with C. Franklin). 2nd edition 2009, 3rd edition 2013, 4th edition 2017 (also with B. Klingenberg), 5th edition 2021, Pearson Prentice Hall. Italian translation by G. Espa, R. Mocciolo, D. Giuliani, and M. M. Dickson.

Strength in Numbers: The Rising of Academic Statistics Departments in the U. S. (2012). Springer (edited with Xiao-Li Meng).

Foundations of Linear and Generalized Linear Models (2015), Wiley.

Foundations of Statistics for Data Scientists, with R and Python, CRC Press (with M. Kateri), 2022. Italian translation by Fabio Corradi (Egea press), Greek translation forthcoming.

Articles Published

Bounds on the extinction time distribution of a branching process. *Advances in Applied Probability*, 6 (1974), 322-335.

On the extinction times of varying and random environment branching processes. *Journal of Applied Probability*, 12 (1975), 39-46.

The effect of category choice on some ordinal measures of association. *Journal of the American Statistical Association*, 71 (1976), 49-55.

Some exact conditional tests of independence for r×c cross-classification tables. (with D. Wackerly) *Psychometrika*, 42 (1977), 111-125.

Some considerations in measuring partial association for ordinal categorical data. *Journal of the American Statistical Association*, 72 (1977), 37-45.

A coefficient of multiple association based on ranks. *Communications in Statistics*, A6 (1977), 1341-1359.

Statistical analysis of qualitative variation. (with B. Agresti), Chapter 10, in *Sociological Methodology* (1978) ed. by K. F. Schuessler, Jossey-Bass Publ., 204-237.

Descriptive measures for rank comparisons of groups. *Proceedings of the Social Statistics Section of the American Statistical Association*, (1978), 585-590.

Exact conditional tests for cross-classifications: Approximation of attained significance level. (with D. Wackerly and J. Boyett), *Psychometrika*, 44 (1979), 75-83.

A scientific critique of the EPA Alsea II study and report, published by Environmental Health Sciences Center at Oregon State University (with S. L. Wagner, J. M. Witt, L. A. Norris, J. E. Higgins, and M. Ortiz), 1979.

Analysis of the association between 2, 4, 5-T exposure and hospitalized spontaneous abortions, published by Environmental Health Sciences Center at Oregon State University, 1979.

Measuring association and modelling relationships between interval and ordinal variables. (J. Schollenberger, A. Agresti, and D. Wackerly), *Proceedings of the Social Statistics Section of the American Statistical Association*, (1979), 624-626.

Generalized odds ratios for ordinal data. *Biometrics*, 36 (1980), 59-67.

A hierarchical system of interaction measures for multidimensional contingency tables. *Journal of the Royal Statistical Society B*, 43 (1981), 293-301.

Measures of nominal-ordinal association, *Journal of the American Statistical Association*, 76 (1981), 524-529.

Statistical fallacies. *Encyclopedia of the Statistical Sciences*, Vol. 3 (1983), John Wiley and Sons, 24-28.

Testing marginal homogeneity for ordinal categorical variables, *Biometrics*, 39, (1983), 505-510.

A survey of strategies for modelling cross-classifications having ordinal variables. Invited Essay Review in *Journal of the American Statistical Association*, 78 (1983), 184-198.

Association models for multidimensional cross-classifications of ordinal variables (with A. Kezouh), invited paper for issue on categorical data, *Communications in Statistics*, A12 (1983), 1261-1276.

A simple diagonals-parameter symmetry and quasisymmetry model, *Statistics and Probability Letters*, 1 (1983), 313-316.

The measurement of classification agreement: An adjustment to the Rand statistic for chance agreement (with L. Morey), *Educational and Psychological Measurement*, 44 (1984), 33-37.

Ordinal data. *Encyclopedia of the Statistical Sciences*, Vol. 6 (1985), John Wiley and Sons, 511-516.

Comparing mean ranks for repeated measures data (with J. Pendergast), *Communications in Statistics*, A15 (1986), 1417-1433.

A new model for ordinal pain data from a pharmaceutical study (with C. Chuang), *Statistics in Medicine*, 5 (1986), 15-20.

Applying R^2-type measures to ordered categorical data, *Technometrics*, 28 (1986), 133-138.

Models for the probability of concordance in cross-classification tables (with J. Schollenberger and D. Wackerly), *Quality and Quantity (International Journal of Methodology)*, 21 (1987), 49-57.

Order-restricted score parameters in association models for contingency tables (with C. Chuang and A. Kezouh), *Journal of the American Statistical Association*, 82 (1987), 619-623.

Bayesian and maximum likelihood approaches to order-restricted inference for models for ordinal categorical data (with C. Chuang), pp. 6-27 in *Advances in Order Restricted Statistical Inference*, (1986), ed. by R. Dykstra, T. Robertson, and F.T. Wright, New York: Springer-Verlag.

An empirical investigation of some effects of sparseness in contingency tables (with M. Yang), *Computational Statistics & Data Analysis*, 5 (1987), 9-21.

A model for agreement between ratings on an ordinal scale, *Biometrics*, 44 (1988), 539-548.

Logit models for repeated ordered categorical response data, invited paper for *Proceedings of 13th SAS Users Group Conference*, (1988), 997-1005.

An agreement model with Kappa as parameter, *Statistics and Probability Letters*, 7 (1989), 271-273.

Model-based Bayesian methods for estimating cell proportions in cross-classification tables having ordered categories (with C. Chuang), *Computational Statistics & Data Analysis*, 7 (1989), 245-258.

A tutorial on modeling ordered categorical response data, *Psychological Bulletin*, 105 (1989), 290-301.

A survey of models for repeated ordered categorical response data, *Statistics in Medicine*, 8 (1989), 1209-1224.

Exact inference for contingency tables with ordered categories (with C. Mehta and N. Patel), *Journal of the American Statistical Association*, 85 (1990), 453-458.

Analysis of sparse repeated categorical measurement data (with S. Lipsitz and J. B. Lang), *SAS Users Group International Conference Proceedings*, 1991, 1452-1460.

Parsimonious latent class models for ordinal variables, invited paper in *Proceedings of 6th International Workshop on Statistical Modeling*, (1991), 1-12, Utrecht, Netherlands.

Analysis of ordinal paired comparison data, *Journal of the Royal Statistical Society C* (Applied Statistics), 41 (1992), 287-297.

Loglinear modeling of pairwise interobserver agreement on a categorical scale (M. P. Becker and A. Agresti), *Statistics in Medicine*, 11 (1992), 101-114.

Comparing marginal distributions of large, sparse contingency tables (with S. Lipsitz and J. B. Lang), *Computational Statistics and Data Analysis*, 14 (1992), 55-73.

A survey of exact inference for contingency tables (with discussion), *Statistical Science*, 7 (1992), 131-177.

Quasi-symmetric latent class models, with application to rater agreement (with J. Lang), *Biometrics*, 49 (1993), 131-140.

Modeling patterns of agreement and disagreement, *Statistical Methods in Medical Research*, 1 (1992), 201-218.

Computing conditional maximum likelihood estimates for generalized Rasch models using simple loglinear models with diagonals parameters, *Scandinavian Journal of Statistics*, 20 (1993), 63-72.

Some empirical comparisons of exact, modified exact, and higher-order asymptotic tests of independence for ordered categorical variables (with J. Lang and C. Mehta), *Communications in Statistics, Simulation and Computation*, 22 (1993), 1-18.

A proportional odds model with subject-specific effects for repeated ordered categorical responses (with J. Lang), *Biometrika*, 80 (1993), 527-534.

Distribution-free fitting of logit models with random effects for repeated categorical responses, *Statistics in Medicine*, 12 (1993), 1969-1987.

Simultaneously modeling joint and marginal distributions of multivariate categorical responses (J. Lang and A. Agresti), *Journal of the American Statistical Association*, 89 (1994), 625-632.

Simple capture-recapture models permitting unequal catchability and variable sampling effort, *Biometrics*, 50, (1994), 494-500.

Logit models and related quasi-symmetric loglinear models for comparing responses to similar items in a survey, *Sociological Methods and Research*, 24 (1995), 68-95.

Improved exact inference about conditional association in three-way contingency tables (D. Kim and A. Agresti), *Journal of the American Statistical Association*, 90 (1995), 632-639.

Raking kappa: Describing potential impact of marginal distributions on measures of agreement (with A. Ghosh and M. Bini), *Biometrical Journal*, 37 (1995) 811-820.

Order-restricted tests for stratified comparisons of binomial proportions (with B. Coull), *Biometrics*, 52 (1996) 1103-1111.

Mantel–Haenszel–type inference for cumulative odds ratios (I-M. Liu and A. Agresti), *Biometrics*, 52 (1996) 1223-1234.

Logit models with random effects and quasi-symmetric loglinear models, pp. 3-12 in *Statistical Modelling, Proceedings of the 11th International Workshop on Statistical Modelling* (Orvieto, Italy, July 1996).

Connections between loglinear models and generalized Rasch models for ordinal responses, Chapter 20 in *Applications of Latent Trait and Latent Class Models in the Social Sciences*, pp. 209-218, edited by J. Rost and R. Langeheine, Berlin: Waxmann Munster, (1997).

Nearly exact tests of conditional independence and marginal homogeneity for sparse contingency tables (D. Kim and A. Agresti), *Computational Statistics and Data Analysis*, (1997), 24, 89-104.

A model for repeated measurements of a multivariate binary response, *Journal of the American Statistical Association*, (1997), 92, 315-321.

Evaluating agreement and disagreement among movie reviewers (with L. Winner), *Chance*, (1997), 10, 10-14 (cover article).

A review of tests for detecting a monotone dose-response relationship with ordinal response data (with C. Chuang-Stein), *Statistics in Medicine*, (1997), 16, 2599-2618.

Exact inference for contingency tables, in *Recent Statistical Methods for Small Samples Analysis*, Atelier de Formation no. 91, INSERM (Paris, France).

An empirical comparison of inference using order-restricted and linear logit models for a binary response (with B. Coull), *Communications in Statistics, Simulation and Computation*, (1998), 27, 147-166.

Beta distribution, in *Encyclopedia of Biostatistics*, Vol. 1 (1998), John Wiley and Sons, 298-299.

Approximate is better than "exact" for interval estimation of binomial proportions (with B. Coull), *The American Statistician*, (1998), 52, 119-126.

Order-restricted inference for monotone trend alternatives in contingency tables (with B. Coull), *Computational Statistics & Data Analysis*, (1998), 28, 139-155.

Modelling ordered categorical data: Recent advances and future challenges, (From "Burning Issues in Medical Statistics" Conference, De Montfort Univ., Leicester, U.K.), *Statistics in Medicine*, (1999), 18, 2191-2207.

The use of mixed logit models to reflect subject heterogeneity in capture-recapture studies (B. Coull and A. Agresti), *Biometrics*, (1999), 55, 294-301.

On logit confidence intervals for the odds ratio with small samples, *Biometrics*, (1999), 55, 597-602.

Modeling a categorical variable allowing arbitrarily many category choices, with I. Liu, *Biometrics*, (1999), 55, 936-943.

Mixture models for discrete data: A review, Univ. of Florida Dept. of Statistics Technical report (1999), with B. Caffo, B. Chen, W. Jank, P. Johnson, G. Jones, Z. Mahfoud, D. Shiau.

Challenges for categorical data analysis in the twenty-first century, Chapter 1 (pp. 1-19) in *Statistics for the 21st Century*, edited by C. R. Rao and G. Szekely, published by Marcel Dekker (2000).

Analysis of counts (Contingency table analysis), in *Encyclopedia of Psychology*, (2000), co-publication of American Psychological Association and Oxford University Press.

Strategies for comparing treatments on a binary response with multi-center data, with J. Hartzel, *Statistics in Medicine*, (2000), 19, 1115-1139.

Hierarchical Bayesian analysis of binary matched pairs data (M. Ghosh, M. Chen, A. Ghosh, and A. Agresti), *Statistica Sinica*, (2000), 10, 647-657.

Noninformative priors for one parameter item response models (M. Ghosh, M. Chen, A. Ghosh, and A. Agresti), *Journal of Statistical Planning and Inference*, (2000), 88, 99-115.

Random effects modeling of multiple binomial responses using the multivariate binomial logit-normal distribution, (B. Coull and A. Agresti), *Biometrics*, (2000), 56, 73-80.

Summarizing the predictive power of a generalized linear model, (B. Zheng and A. Agresti), *Statistics in Medicine*, (2000), 19, 1771-1781.

Simple and effective confidence intervals for proportions and difference of proportions result from adding two successes and two failures, with B. Caffo, *The American Statistician*, (2000), 54, 280-288.

Random effects modeling of categorical response data, with J. Booth, J. Hobert, and B. Caffo, *Sociological Methodology* (2000), 30, 27-80.

Describing heterogeneous effects in stratified ordinal contingency tables, with application to multi-center clinical trials (J. Hartzel, I. Liu, and A. Agresti), *Computational Statistics and Data Analysis*, (2001), 35, 429-449.

Exact inference for categorical data: recent advances and continuing controversies, *Statistics in Medicine*, (2001), 20, 2709-2722.

Strategies for modeling a categorical variable allowing multiple category choices, with I. Liu, *Sociological Methods and Research*, (2001), 29, 403-434.

A class of generalized loglinear models with random effects (B. Coull and A. Agresti), *New Trends in Statistical Modelling: Proceedings of the 16th International Workshop on Statistical Modelling*, 111-118 (2001).

On small-sample confidence intervals for parameters in discrete distributions, with Y. Min, *Biometrics*, (2001), 57, 963-971.

A correlated probit model for multivariate repeated measures of mixtures of binary and continuous responses (R. V. Gueorguieva and A. Agresti), *Journal of the American Statistical Association* (2001), 96, 1102-1112.

Modeling clustered ordered categorical data: A survey, with R. Natarajan, *International Statistical Review*, (2001), 69, 345-371.

Multinomial logit random effects models (J. Hartzel, A. Agresti, and B. Caffo), *Statistical Modelling*, (2001), 1, 81-102.

Statistical issues in the 2000 U.S. Presidential election in Florida, with B. Presnell, for *University of Florida Journal of Law and Public Policy*, (2001), 13, 117-134.

The analysis of contingency tables under inequality constraints, with B. A. Coull, in special issue of *Journal of Statistical Planning and Inference* on "Inference Under Inequality Constraints," (2002), 107, 45-73.

Multivariate analysis: Discrete variables, overview, *International Encyclopedia of the Social and Behavioral Sciences*, (2002), pp. 10233-10240.

Measures of relative model fit, with B. Caffo, *Computational Statistics and Data Analysis*, (2002), 39, 127-136.

Unconditional small-sample confidence intervals for the odds ratio, with Y. Min, *Biostatistics*, (2002), 3, 379-386.

Modeling nonnegative data with clumping at zero: A survey (Y. Min and A. Agresti), invited paper for first issue of *Journal of the Iranian Statistical Society*, (2002), 1, 7-33.

Links between binary and multi-category logit item response models and quasi-symmetric loglinear models, for special issue of *Annales de la Faculté des Sciences de Toulouse Mathématiques* to honor retirement of Henri Caussinus, (2002), XI, no. 4, 443-454.

Dealing with discreteness: Making 'exact' confidence intervals for proportions, differences of proportions, and odds ratios more exact, *Statistical Methods in Medical Research*, (2003), 12, 3-21.

The 2000 Presidential election in Florida: Misvotes, undervotes, overvotes, with B. Presnell, *Statistical Science*, (2003), 17, 436-440.

A class of generalized log-linear models with random effects (B. A. Coull and A. Agresti), *Statistical Modelling*, (2003), 3, 251-271.

Effects and noneffects of paired identical observations in comparing proportions with binary matched-pairs data, with Y. Min, *Statistics in Medicine*, (2004), 23, 65-75.

Examples in which misspecification of a random effects distribution reduces efficiency, and possible remedies, with B. Caffo and P. Ohman-Strickland, *Computational Statistics and Data Analysis*, (2004), 47, 639-653.

Interview with Alan Agresti, conducted by Jackie Dietz, *STATS* (The Magazine for Students of Statistics), (2004), issue 39, 10-14. https://www.causeweb.org/cause/filebrowser/download/358

Strategies for comparing treatments on a binary response with multi-centre data, with J. Hartzel, in *Tutorials in Biostatistics*, Volume 1, R. B. D'Agostino (editor), Wiley, Chichester, 2004, pp. 397-422.

A review of tests for detecting a monotone dose-response relationship with ordinal response data, with C. Chuang-Stein, in *Tutorials in Biostatistics*, Volume 1, R. B. D'Agostino (editor), Wiley, Chichester, 2004, pp. 423-442.

Simple improved confidence intervals for comparing matched proportions, with Y. Min, *Statistics in Medicine*, (2005), 24, 729-740.

The analysis of ordered categorical data: An overview and a survey of recent developments (I. Liu and A. Agresti), invited discussion paper by the Spanish Statistical Journal, *TEST*, (2005), 14, 1-46.

Multivariate tests comparing binomial probabilities, with application to safety studies for drugs, with B. Klingenberg, *Applied Statistics* (*J. Roy. Statist. Soc. C*), (2005) 54, 691-706.

Frequentist performance of Bayesian confidence intervals for comparing proportions in 2x2 contingency tables, with Y. Min, *Biometrics*, (2005), 61, 515-523.

Random effects models for repeated measures of zero-inflated count data (Y. Min and A. Agresti), *Statistical Modelling* (2005), 5, 1-19.

Bayesian analysis of categorical data, pp. 23-26 in *Classification and Data Analysis 2005*, a book of short papers from the Meeting of the Classification and Data Analysis Group of the Italian Statistical Society, published by Monte Università Parma, 2005.

Bayesian inference for categorical data analysis, with D. Hitchcock, *Statistical Methods and Applications, The Journal of the Italian Statistical Society* (2005), 14, 297-330.

Randomized confidence intervals and the mid-P approach, with A. Gottard, discussion of article by C. Geyer and G. Meeden, *Statistical Science* (2005), 20, 367-371.

Reducing conservatism of exact small-sample methods of inference for discrete data, with A. Gottard, pp. 245-260 in *COMPSTAT: Proceedings in Computational Statistics*: 17th Symposium of International Association for Statistical Computing (IASC), edited by A. Rizzi and M. Vichi, Heidelberg: Physica-Verlag, 2006.

Multivariate extensions of McNemar's test (B. Klingenberg and A. Agresti), *Biometrics* (2006), 62, 921-928.

Independence in multi-way contingency tables: S. N. Roy's breakthroughs and later developments, with A. Gottard, *Journal of Statistical Planning and Inference* (2007), 137, 3216-3226.

A class of ordinal quasi symmetry models for square contingency tables (M. Kateri and A. Agresti), *Statistics and Probability Letters* (2007), 77, 598-603.

Nonconservative exact small-sample inference for discrete data, with A. Gottard, *Computational Statistics and Data Analysis* (2007), 51, 6447-6458.

Modeling and inference for an ordinal effect size measure (E. Ryu and A. Agresti), *Statistics in Medicine* (2008), 27, 1703-1717.

Simultaneous confidence intervals for comparing binomial parameters, with E. Ryu, M. Bini, and B. Bertaccini, *Biometrics* (2008), 64, 1270-1275.

Good confidence intervals for discrete statistical models, with E. Ryu, in proceedings of 2008 International Workshop of Statistical Modelling, Utrecht, Netherlands.

A generalized regression model for a binary response, (M. Kateri and A. Agresti), *Statistics & Probability Letters* (2010), 80, 89-95.

Pseudo-score confidence intervals for parameters in discrete statistical models, with E. Ryu, *Biometrika* (2010), 97, 215-222.

Categorical data analysis, in *Encyclopedia of Research Design* (M. Kateri and A. Agresti), Sage (2010).

Categorical data analysis,in *International Encyclopedia of Statistical Science* (A. Agresti and M. Kateri), Springer, (2010).

Quasi-symmetric graphical log-linear models, (A. Gottard, G.M. Marchetti, and A. Agresti), *Scandinavian Journal of Statistics*, (2011), 38, 447-465.

Score and pseudo score confidence intervals for categorical data analysis, in Gary Koch festschrift special issue of *Statistics in Biopharmaceutical Research*, (2011), 3, 163-172.

Statistics as an academic discipline. Chapter 1 in *Strength in Numbers: The Rising of Academic Statistics Departments in the U.S.*, edited by A. Agresti and X.-L. Meng, (2012) Springer.

University of Florida Department of Statistics, by A. Agresti, W. Mendenhall III, and Richard Scheaffer. Chapter in *Strength in Numbers: The Rising of Academic Statistics Departments in the U.S.*, edited by A. Agresti and X.-L. Meng, (2012) Springer.

Bayesian inference about odds ratio structure in ordinal contingency tables, (M. Kateri and A. Agresti) *Environmetrics* (2013), 24, 281-288.

GEE for multinomial responses using a local odds ratios parameterization, (A. Touloumis, A. Agresti, and M. Kateri). *Biometrics* (2013), 69, 633-640.

Some remarks on latent variable models in categorical data analysis, (A. Agresti and M. Kateri) *Communications in Statistics, Theory and Methods* (2014), 43, 801-814.

Two Bayesian/frequentist challenges for categorical data analyses, *Metron* (2014), 72, 125-132.

Ordinal data. Entry for *Wiley StatsRef: Statistics Reference Online*, 2015.

Categorical regularization: Discussion of article by Tutz and Gertheiss. *Statistical Modelling* (2016), 16, 201-204.

Simple effect measures for interpreting models for ordinal categorical data, (A. Agresti and C. Tarantola), pp. 252-257 in *Proceedings of the 32nd International Workshop on Statistical Modelling*, Groningen, Netherlands (2017).

Ordinal probability effect measures for group comparisons in multinomial cumulative link models, (A. Agresti and M. Kateri), *Biometrics*, (2017), 73, 214-219.

Binomial confidence interval. Entry for *Wiley StatsRef: Statistics Reference Online*, 2018 (revision of previous article by Clifford Lunneborg).

Simple effect measures for interpreting models for ordinal categorical data, (A. Agresti and C. Tarantola), *Statistica Neerlandica*, (2018), 72, 210-223.

Some issues in generalized linear modeling, in Springer proceedings of International Workshop on Matrices and Statistics conference, Funchal, Portugal (2019).

C. R. Rao's foundational contributions to statistics: In celebration of his centennial year, (B.L.S. Prakasa Rao, R. Carter, F. Nielsen, A. Agresti, A. Ullah, and T.J. Rao), *AmStat News*, September 2020.

Interpreting effects in generalized linear modeling, (A. Agresti, C. Tarantola, and R. Varriale), Pages 1-8 in *Statistical Learning and Modeling in Data Analysis*, edited by S. Balzano, G. Porzio, R. Salvatore, D. Vistocco, and M. Vichi, Springer (2021).

The foundations of statistical science: A history of textbook presentations (with discussion). *Brazilian Journal of Probability and Statistics*, (2021), 35, 657-698.

Reflections on Murray Aitkin's contributions to nonparametric mixture models and Bayes factors, (A. Agresti, F. Bartolucci, and A. Mira), *Statistical Modelling* (2022), 22, 33-45.

A review of score-test-based inference for categorical data, (A. Agresti, S. Giordano, and A. Gottard), for special issue of *Journal of Quantitative Economics* to honor C. R. Rao, (2022), https://doi.org/10.1007/s40953-022-00309-8.

Simple ways to interpret effects in modeling binary data, (A. Agresti, C. Tarantola, and R. Varriale), *Trends and Challenges in Categorical Data Analysis*, Chapter 5 (pages 155–176), edited by M. Kateri and I. Moustaki, Springer (2023).

A historical overview of textbook presentations of statistical science theory and methods, invited paper submitted to *Scandinavian Journal of Statistics*, for special issue to honor memory of Sir David Cox), (2023).

Invited Discussions of Published Articles

McCullagh, P. (1980), Regression models for ordinal data, *Journal of the Royal Statistical Society*, B 42, 134.

Nair, V.N. (1986), Testing in industrial experiments with ordered categorical data, *Technometrics*, 28, 292-294.

Liang, K-Y., Zeger, S.L., and Qaqish, B. (1992), Multivariate regression analyses for categorical data, *Journal of the Royal Statistical Society*, B 54, 30.

Pierce, D.A., and Peters, D. (1992), Practical use of higher order asymptotics for multiparameter exponential families, *Journal of the Royal Statistical Society*, B 54, 728-729.

Strawderman, R., and Wells, M. (1998), Approximately exact inference for the common odds ratio in several 2×2 tables, *Journal of the American Statistical Association*, 93, 1307-1310.

Brown, L.D., Cai, T.T., and DasGupta, A. (2001), Interval estimation for a binomial proportion, *Statistical Science*, 16, 117-120 (with B. Coull).

Rabe-Hesketh, S., and Skrondal, A. (2001), Parameterization of multivariate random effects models for categorical data, *Biometrics*, 57, 1263-1264 (B. Coull and A. Agresti).

Geyer, C., and Meeden, G. (2005), Fuzzy and randomized confidence intervals and P-values, *Statistical Science*, 20, 367-371 (with A. Gottard).

Wild, C., Pfannkuch, M., Regan, M. and Horton, J. (2011), Towards more accessible conceptions of statistical inference, *Journal of the Royal Statistical Society, Series A*.

Varin, C., Cattelan, M., and Firth, D. (2015), Statistical modelling of citation exchange between statistics journals, *Journal of the Royal Statistical Society, Series A*.

Piccolo, D., and Simone, R. (2019), The class of CUB models: statistical foundations, inferential issues and empirical evidence, *Statistical Methods and Applications (SMA)* (2019) (A. Agresti and M. Kateri).

Book Reviews

Elementary Social Statistics by K. Downey, in *Journal of the American Statistical Association*, 71 (1976).

A Basic Course in Statistics, with Sociological Applications, 3rd ed. by T.R. Anderson and M. Zelditch, in *Journal of the American Statistical Association*, 71 (1976).

Contingency Table Analysis for Road Safety Studies, ed. by G.A. Fleischer, in *Journal of the American Statistical Association*, 78 (1983).

The Analysis of Cross-Classified Data Having Ordered Categories, by L. A. Goodman, in *Journal of Business and Economic Statistics* (1985).

Applied Categorical Data Analysis, by D. Freeman, in *Technometrics* (1988).

Eigenvalue Techniques for Qualitative Data, by A. Israels, in *Journal of the American Statistical Association*, 83 (1988).

Multiway Data Analysis, ed. by R. Coppi, in *Biometrics*, 47 (1991).

Statistical Models for Ordinal Variables, by C. C. Clogg and E. S. Shihadeh, in *Contemporary Sociology* (1995).

A Casebook for a First Course in Statistics and Data Analysis, by S. Chatterjee, M. S. Handcock, and J. S. Simonoff, in *The American Statistician*, 50 (1996).

Regression Models for Categorical and Limited Dependent Variables, by J. S. Long, in *American Journal of Sociology*, 103, 833-835 (1997).

Introduction to the Statistical Analysis of Categorical Data, by E. B. Andersen, *Metrika*, 48, 245-246 (1998).

Discrete Data Analysis with R, by M. Friendly and D. Meyer, *Biometrics*, (2016).

Confidence Intervals for Discrete Data in Clinical Research, by V. Pradhan, A. K. Gangopadhyay, S. M. Menon, C. Basu, and T. Banerjee. *Journal of the American Statistical Association*, (2023).

Eight brief reviews published in *Short Book Reviews*.

Several telegraphic reviews prepared for *Journal of the American Statistical Association* during my tenure as Review Editor, 1994-1996.

Professional Meetings and Seminars

Contributed Papers:

> Florida Chapter, ASA, Orlando, March 17, 1973.
> Eastern Regional, IMS, Ithaca, New York, June 1, 1973.
> Third Conference on Stochastic Processes and their Applications,
>   Sheffield, England, August, 1973.
> Annual Meeting, IMS, New York, December 29, 1973.
> Annual Meeting, ASA, Boston, MA, August 25, 1976.
> Annual Meeting, ASA, San Diego, CA, August 16, 1978.
> Annual Meeting, ASA, Washington, DC, August 15, 1979.
> Annual Meeting, ASA, Toronto, Canada, August 17, 1983.
> Florida Chapter, ASA, Melbourne, FL, February 25, 1984.
> Annual Meeting, ASA, San Francisco, CA, August 19, 1987.
> Biometrics (ENAR) meeting, Baltimore, MD, April 2, 1990.
> International Biometrics Conference, Budapest, Hungary, July 3, 1990.
> Annual Meeting, ASA, Toronto, CA, August 17, 1994
> Annual Meeting, ASA, Orlando, FL, August 15, 1995
> Annual Meeting ASA, Anaheim, CA, August 14, 1997
> International Biometric Conference, Berkeley, CA, July 4, 2000.
> International Workshop on Statistical Modelling, Odense, Denmark, July 5, 2001.
> Biometrics (ENAR) meeting, Arlington, VA, March 17, 2008.

Invited Talks:

> "Considerations in measuring partial association for ordinal data" at Southern Sociological meetings, Miami, FL, April 9, 1976.

> "Measures of association" at SREB Summer Research Conference, Arkadelphia, AK, June 14, 1979.

> "Recent developments in the analysis of ordinal categorical data" at Eastern Regional ASA meeting, Charleston, SC, March 12, 1980.

> "Loglinear and logit models for ordinal variables" at Central Regional ASA meeting, San Antonio, TX, March 15, 1982.

> "A survey of models for ordinal data" at Gregynog Statistical Conference, University of Wales, April 23, 1982.

> "Order-restricted score parameters in association models for contingency tables" at Eastern Regional ASA meeting, Orlando, FL, March 12, 1984.

> "Logit models for an ordered categorical response" at Delaware Chapter meeting of ASA, Newark, DE, April 24, 1987.

> "Logit models for repeated ordered categorical data" at 13th SAS Users Group Conference, Orlando, FL, March 28, 1988.

> "Applications of Bayesian methods to models for ordered categorical data" at Biometrics (ENAR) meeting, Boston, MA, March 30, 1988.

"Modeling pairwise agreement on a categorical scale" at annual meeting of Amer. Statist. Assoc., New Orleans, LA, August 24, 1988.

"Exact inference for contingency tables with ordered categories" (with C. Mehta and N. Patel), at annual meeting of Amer. Statist. Assoc., Washington, DC, August 9, 1989.

"Loglinear models" for Alaska chapter of ASA, Fairbanks, AK, September 18, 1989.

"A twentieth-century tour of categorical data analysis," at 45th Annual Conference on Applied Statistics, Atlantic City, NJ, December 12, 1990.

"Analysis of sparse repeated categorical measurement data," at SAS Users Group Conference, News Orleans, LA, February 19, 1991.

"Parsimonious latent class models for ordinal variables," at 6th International Workshop on Statistical Modeling, Utrecht, Netherlands, July 18, 1991.

"New methods for ordered categorical data," keynote address at meeting of Swiss Statistical Society, Zurich, Switzerland, May 8, 1992.

"Twentieth-century tour of categorical data analysis," XXIV Journees de Statistique, Brussels, Belgium, May 19, 1992.

"New methods for ordered categorical data," Medical Section of Royal Statistical Society, London, England, June 23, 1992.

"R. A. Fisher and categorical data analysis," Connecticut chapter of Amer. Statist. Assoc., January 27, 1993.

"Modeling subject-specific effects for repeated ordered categorical responses," Biometric Society, Philadelphia, March 22, 1993.

"The past and future of categorical data analysis," Keynote address at Statistics Symposium sponsored by Procter & Gamble, Cincinnati, November 1, 1993.

"Twentieth-century tour of categorical data analysis," Michigan chapter of ASA, December 14, 1993.

"Using loglinear models to estimate subject-specific effects for repeated categorical responses," Biometric Society, Cleveland, April 12, 1994.

"Modelling subject-specific effects for repeated categorical responses," Research Workshop on Correlated Categorical Data, Nuffield College, Oxford, U.K., May 6, 1994.

"Logit models and related quasi-symmetric loglinear models for comparing responses to several items in a survey," IPN (Univ. of Kiel) Symposium on Applications of Latent Trait and Latent Class Models in the Social Sciences, Akademie Sankelmark, Germany, May 16, 1994.

"Connections between generalized Rasch models and loglinear models," Conference on Generalized Linear Models, Gainesville, FL, September 30, 1994.

"Logit models and related quasi-symmetric loglinear models for comparing responses to similar items in a survey," presented to Social Statistics section of Royal Statistical Society, London, England, October 1995.

"Logit models and related loglinear models for repeated categorical responses," Kullback Memorial Research Conference, Washington, DC, May 24, 1996.

"Logit models with random effects and quasi-symmetric loglinear models," 11th Annual Workshop on Statistical Modelling, Orvieto, Italy, July 15, 1996.

"Order restricted inference for contingency tables," annual ASA meeting, Chicago, IL, August 5, 1996.

"Logit models and related loglinear models for repeated categorical responses," Social Science and Statistics: Clifford Clogg Memorial Conference, University Park, PA, September 27, 1996.

"Exact vs. approximate inference for binomial proportions," Atlanta chapter of ASA, February 19, 1997.

"A Rasch-type Model for Repeated Measurement of a Multivariate Binary Response," Biometric Society, Memphis, March 24, 1997.

"Exact vs. approximate inference for binomial proportions," Colorado-Wyoming chapter of ASA, April 25, 1997.

"Exact inference for contingency tables," INSERM workshop on small-sample methods, St. Germain-en-Laye, France, June 3, 1997.

"Exact vs. approximate inference for binomial proportions," symposium on complex models for categorical data, Univ. of Tilburg, Netherlands, June 5, 1997.

"Modeling ordered categorical data: Recent advances and future challenges, Conference on Burning Issues in Medical Statistics, De Montfort University, Leicester, England, July 24, 1997.

"Approximate is better than exact for interval estimation of binomial parameters," Annual Florida chapter meeting of ASA, Orlando, FL, February 7, 1998.

"Logistic regression," invited tutorial for Fifth International Applied Statistics in Industry and Manufacturing conference, Orlando, FL, February 24, 1998.

"Small-sample 'exact' analysis of categorical data: Recent advances and continuing controversies," Charles Odoroff Memorial Lecture, University of Rochester, April 16, 1998.

"Challenges for categorical data analysis in the twenty-first century," invited by C. R. Rao for symposium on "Statistics for the 21st Century," Bowling Green State University, April 26, 1998.

"Twentieth-century tour of categorical data analysis," Clifford C. Clogg memorial lecture, Penn State University, November 2, 1998.

"Modelling ordered categorical responses," 10th Annual European Workshop on Statistical Methodology in Clinical R & D, Prague, Czech Republic, April 19, 1999.

"Twentieth-century tour of categorical data analysis," 50th annual conference of New Zealand Statistical Association, Wellington, New Zealand, July 5, 1999.

"Variability: Its implications on your life course after graduation," Commencement ad-

dress, De Montfort University, July 14, 1999.

"Small-sample analysis of categorical data: Recent advances and continuing controversies," keynote session, conference on Statistical Issues in Biopharmaceutical Environments, De Montfort University, Leicester, U.K., July 28, 1999.

"Modeling ordered categorical response variables," at Biométrie et Épidémiologie 99, conference sponsored by Société Française de Biométrie, Vannes, Brittany, France, October 1, 1999.

"Dealing with discreteness: Improved confidence intervals for the proportion, difference of proportions, and odds ratio," first Graduate Student Invited Seminar, Department of Statistics, University of Minnesota, November 4, 1999.

"Reflections on re-reading Fleiss's *Statistical Methods for Rates and Proportions*," at invited session honoring Joseph Fleiss at Biometrics (ENAR) meeting, March 20, 2000.

"Challenges for categorical data analysis in the twenty-first century,"4th Army Conference on Applied Statistics, Rice University, Houston, TX, October 19, 2000.

"Statistical issues in the 2001 presidential election," at Conference on "Florida Election 2000: Insiders at the Intersection of Law, Politics and the Media," University of Florida Levin College of Law, Gainesville, FL, February 26, 2001.

"Dealing with discreteness: Improved confidence intervals for the proportion, difference of proportions, and odds ratio," Memorial lecture in honor of Francisco J. Aranda Ordaz, National University of Mexico, Mexico City, March 9, 2001.

"Small-sample confidence intervals for parameters in discrete distributions," Second Annual Statistics and Biostatistics Distinguished Alumni Lecture, Department of Statistics, University of Wisconsin, Madison, WI, May 4, 2001.

"Dealing with discreteness: Improved confidence intervals for the proportion, difference of proportions, and odds ratio," Presented to New Jersey ASA chapters, sponsored by Merck pharmaceutical company, Whitehouse Station, NJ, April 2, 2002.

"Teaching categorical data analysis," presented at 6th International Conference on Teaching Statistics (ICOTS), Cape Town, South Africa, July 11, 2002.

"Improved small-sample and large-sample confidence intervals for discrete data," Keynote address at 6th Army Conference on Applied Statistics, Raleigh, NC, October 30, 2002.

"Improved simple confidence intervals for proportions and differences of proportions," Centers for Disease Control annual awards meeting, March, 2003.

"Non-normal random effects in generalized linear mixed models," Justus Seely Memorial Conference on Linear Models, Corvallis, OR, August 1, 2003.

"Improved small-sample confidence intervals for categorical data," Joint Statistical Meetings, San Francisco, August 4, 2003.

"Improved simple confidence intervals for proportions and differences of proportions," Chicago chapter of American Statistical Association, October 14, 2003.

"Historical tour of categorical data analysis," Keynote address for 24th Conference on

Applied Statistics in Ireland, Galway, May 14, 2004.

"Historical tour of categorical data analysis," Keynote address for 2004 Hawaii International Conference on Statistics, Mathematics, and Related Fields, Honolulu, Hawaii, June 9, 2004.

"Learning by educating," invited talk for Herman Callaert retirement celebration, Diepenbeek, Belgium, May 19, 2004.

"Historical tour of categorical data analysis," Keynote address for fall conference of Kansas and West Missouri chapter of American Statistical Association, September 13, 2004.

"Recent research on analyzing repeated measures of categorical data," three lectures presented at 3e Cycle Romand de Statistique et de Probabilités Appliquées," Ovronnaz, Switzerland, September 30 - October 2, 2004.

"Non-normal random effects in generalized linear mixed models," in invited session at Biometrics (ENAR) meeting, Austin, TX, March 21, 2005.

"Bayesian analysis of categorical data," plenary session of Meeting of the Classification and Data Analysis Group of the Italian Statistical Society, Parma, Italy, June 7, 2005.

"Improved confidence intervals for proportions, differences of proportions, and odds ratios," keynote lecture for International Society of Clinical Biostatistics, Szeged, Hungary, August 23, 2005.

Allen T. Craig lecturer, University of Iowa, April 2006 (two seminars)
"Reducing conservatism of exact small-sample inference for discrete data," invited talk for ASC/NZSA 2006, Auckland, New Zealand, July 5, 2006.

"Reducing conservatism of exact small-sample inference for discrete data," keynote talk for CompStat, Rome Italy, August 28, 2006.

"Reducing conservatism of exact small-sample inference for discrete data," invited talk for Cherry Bud Workshop 2007, Keio University, Yokohama, Japan, March 16, 2007.

"Small-sample interval estimation for categorical data," keynote lecture for Applied Statistics 2007 International Conference, Statistical Society of Slovenia, September 23, 2007.

"Good confidence intervals for categorical data analyses," keynote talk at Conference in Statistical Methods organized by Department of Statistics, Florida International University, March 28, 2008.

"Good confidence intervals for categorical data analyses," keynote talk at South Carolina SAS Users Group and South Carolina Chapter of the American Statistical Association, April 11, 2008.

"Good confidence intervals for discrete statistical models," invited lecture for 2008 International Workshop of Statistical Modelling, Utrecht, Netherlands, July 10, 2008.

"Good confidence intervals for discrete statistical models," invited keynote lecture for 2008 Royal Statistical Society conference, Nottingham, UK, September 3, 2008.

"Some thoughts about content in the introductory statistics course," invited keynote talk for 2008 CETL-MSOR conference on Shaping the Future of Maths and Stats in Higher

Education, Lancaster, UK, September 9, 2008.

"Historical highlights (including some Boston-area contributions) in the development of categorical data analysis," Boston Chapter of American Statistical Association, September 23, 2009.

"Good confidence intervals for categorical data analyses," invited lecture for Festschrift for Gary Koch, University of North Carolina, Chapel Hill, October 12, 2009.

"Historical highlights in the development of categorical data analysis," invited lecture for 50th anniversary of the University of Wisconsin Statistics Department, Madison WI, May 2010.

"Some remarks on latent variable models in categorical data analysis," invited lecture for conference on "Methods and Models on Latent Variables," Naples, Italy, May 19, 2012.

"Good confidence intervals for categorical data analyses," invited lecture for Colombia statistics conference, Bucaramanga, Colombia, July 9, 2012.

"Teaching statistics to social science students," invited lecture for Workshop for Teachers of Quantitative Methods for Social Scientists, Univ. of Oxford, UK, June 29, 2012.

"Two challenging problems for frequentist modeling of categorical data," Workshop on Recent Advances in Statistical Inference, Univ. of Padova, Italy, March 22, 2013.

"Good confidence intervals for categorical data analyses," invited lecture for First Portuguese Meeting of Biometry and the First Portuguese-Galician Meeting of Biometry, Braga, Portugal, July 14, 2013.

"A time travel with 40 statistics departments," invited lecture (with Xiao-Li Meng) at Joint Statistical Meetings, Montreal, Canada, August 4, 2013.

"The rising of academic statistics and biostatistics, with focus on New England," keynote lecture, New England Statistical Society, April 26, 2014.

"Some perspectives about generalized linear modeling," International Conference on Trends and Perspectives in Linear Statistical Inference (LinStat2014), Linköping, Sweden, August 25, 2014.

"Historical highlights in the development of categorical data analysis," Istat Lectio Magistralis, Rome Italy, October 22, 2015.

"Historical highlights in the development of categorical data analysis," Festcolloquium for Gerhard Tutz, Munich Germany, February 4, 2016.

"Some perspectives about generalized linear modeling," presented as Theodore von Karman Fellow, RWTH Aachen University, Aachen, Germany, February 12, 2016.

"Good confidence intervals for categorical data analyses," presented as Theodore von Karman Fellow, RWTH Aachen University, Aachen, Germany, February 12, 2016.

"Historical highlights in the development of categorical data analysis," presented as Theodore von Karman Fellow, RWTH Aachen University, Aachen, Germany, February 12, 2016.

"Some perspectives about generalized linear modeling," IWMS conference, Madeira, June 6-9, 2016.

"Some perspectives about generalized linear modeling," National Brazilian Symposium on Probability and Statistics (SINAPE), Porto Alegre, Brazil, July 26, 2016.

"Ordinal model effect measures," International Statistical Institute Regional Meeting, Bali, March 22, 2017.

"Some issues in generalized linear modeling," Probability and Statistics Day at University of Maryland, Baltimore County, April 22, 2017.

"Simple effect measures for interpreting models for ordered categorical data," International Workshop on Statistical Modelling, Groningen, Netherlands, July 6, 2017.

"Simple ordinal model effect measures," Challenges for Categorical Data Analysis, RWTH Aachen University, October 22-23, 2018.

"Simple ordinal model effect measures," Advances in Statistical Modelling of Ordinal Data, University of Naples, October 25, 2018.

"Some issues in generalized linear models," CLADAG conference, Cassino, Italy, September 11, 2019.

"Reminiscences of Statistics visits to Italy," Workshop on Categorical Data Analysis and Friends: Celebrating Alan Agresti's Italian Citizenship, Florence, Italy, September 18, 2019.

"Simple ways to interpret effects in modeling binary and ordinal data," ERCIM, London, UK, December 16, 2019.

"The history of statistical science: A textbook view," Italian Statistical Society, Caserta Italy, June 23, 2022.

Invited Short Courses and Tutorials

"Analysis of ordered categorical data" for ASA Continuing Education, Chicago, IL, August 19, 1986 and Orlando, FL, January 7, 1987.

"Analysis of categorical data: Analogs to regression methods", for Southern California chapter of ASA, May 13, 1988.

"Categorical data analysis" (with C. Chuang-Stein) for ASA Continuing Education, Anaheim, CA, August 4, 1990.

"Categorical data analysis" for ASA-ASQC Annual Conference on Applied Statistics, Atlantic City, NJ, December 13-14, 1990.

"Categorical data analysis" for University of Padova, Italy, June 10-21, 1991.

"Categorical data analysis" for Department of Statistics, Univ. of Florida, Orlando, FL, 1991, 1992, 1994, 1995, 1996, 1997, 1999, 2001, 2002, 2004.

"Categorical data analysis" for Limburgs Universitair Centrum, Diepenbeek, Belgium, May 15, 1992.

"Categorical data analysis" for Biometrics (ENAR) meeting, Philadelphia, PA, March 21, 1993.

"Recent research in ordinal categorical data analysis" for Univ. of Groningen, Netherlands, June 23-25, 1993.

"Categorical data analysis" for Bocconi Univ. (Milan, Italy), presented in Livigno, Italy, July 19 - August 2, 1993.

"Topics in categorical data analysis," series in Advanced Issues in Research Analysis, Case Western Reserve Univ., April 14, 1995.

"Categorical data analysis," for Third International Applied Statistics in Industry Conference, Dallas, TX, June 3-4, 1995.

"Categorical data analysis," one-week short course for University of Firenze, held in convent at San Miniato, Italy, November 1995 .

"An applied introduction to categorical data analysis," for ASA Continuing Education, Chicago, IL, August 4, 1996.

"An introduction to categorical data analysis" for Univ. of Innsbruck, Austria, June 12-14, 1997.

"An introduction to categorical data analysis" for Univ. of Paris 7 (Denis Diderot), May 18-20, 1998.

"Workshop on categorical data analysis," for Waikato Centre for Applied Statistics, presented as adjunct to 50th conference of New Zealand Statistical Association, July 8, 1999, Univ. of Waikato, Hamilton, New Zealand.

"Categorical data analysis," for De Montfort University, Leicester, U.K., presented as adjunct to conference on Statistical Issues in Biopharmaceutical Environments, July 26-27, 1999.

"Categorical data methods for ordinal data, repeated measurement, and small samples, University of Padova, Italy, May 15-19, 2000.

"Analysis of repeated categorical measurement data," at Eli Lilly annual meeting of statisticians, Indianapolis, IN, April 11, 2002.

"Analysis of repeated categorical measurement data," for American Statistical Association, New York, NY, August 12, 2002. This was chosen by the Advisory Committee on Continuing Education of the American Statistical Association for their annual Excellence-In-CE award.

"Analysis of repeated categorical measurement data," for Victoria University, Wellington, New Zealand, April 15, 2003. Presented in conjunction with visit to Victoria University as the Shayle R. Searle Visiting Fellow in Statistics for 2003.

"Analysis of repeated categorical measurement data," for Statistics Dept., University of Firenze, Italy, May 12-14, 2003.

"Analysis of repeated categorical measurement data," for American Statistical Association, New York, NY, August 4, 2003.

"Analysis of repeated categorical measurement data," for Cleveland Chapter of American Statistical Association, Cleveland, Ohio, April 26, 2004.

"Analysis of repeated categorical measurement data," for Univ. of Palermo, Italy, May 24-27, 2004.

"An Introduction to Logistic Regression" for Department of Statistics, Univ. of Florida, Orlando, FL, 2005.

"An Introduction to Logistic Regression" for Department of Statistics, Univ. of Firenze, Italy, July 4-5, 2005.

"Analysis of repeated categorical measurement data," for Univ. of Orebro, Sweden, October 4-5, 2005.

"An Introduction to Logistic Regression" for Department of Statistics, Univ. of Firenze, Italy, May 9-10, 2006.

"Analysis of repeated categorical measurement data," for Univ. of Piraeus, Greece, May 15-19, 2006.

"Analysis of repeated categorical measurement data," for Univ. of Oslo, Norway, August 20-23, 2007.

"Analysis of repeated categorical measurement data," for Univ. of Piraeus, Greece, May 20-22, 2008.

"Analysis of repeated categorical measurement data," for Institute of Pharmaceutical Statisticians, Sunningdale, UK, August 19-20, 2008.

"Modelling ordinal data," for University of Lancaster, UK, September 10, 2008.

"Analysis of clustered categorical data," University of Padova, Italy, May 14-23, 2009.

"Analysis of clustered categorical data," Deming Applied Statistics Conference, Atlantic City, NJ, December 10-11, 2009.

"Modelling ordinal data," for University of Piraeus, Greece, May 19-21, 2010.

"Modelling ordinal data," for American Statistical Association (with Bhramar Mukherjee), August 2, 2010.

"Modelling ordinal data," for Harvard University, October 23, 2010.

"Modeling ordinal categorical data," University of Padova, Italy, May 23-27, 2011.

"Modeling ordinal categorical data," Royal Statistical Society, London, UK, July 20-21, 2011.

"Modeling ordinal categorical data," University of Groningen, Netherlands, April 4-5, 2012.

"Modeling ordinal categorical data," Oxford University, June 27-28, 2012.

"Modeling ordinal categorical data," statistics conference in Bucaramanga, Colombia, July 18-19, 2012.

"Modeling ordinal categorical data," Deming conference on applied statistics, Atlantic City, NJ, December 6-7, 2012.

"Introduction to categorical data analysis," University of Firenze, Italy, March 25-26, 2013.

"Introduction to categorical data analysis," with Maria Kateri, Royal Statistical Society, London, August 20-21, 2013.

"Modeling ordinal categorical data," for Universities of Milano, Milano-Bicocca, Pavia, held in Milan, Italy, May 20-23, 2014.

"Modeling ordinal categorical data," for Harvard University Biostatistics Department (Harvard Catalyst series), December 3-4, 2014.

"Modeling ordinal categorical data," for International Workshop on Statistical Modelling, Linz, Austria, July 5, 2015.

"Introduction to categorical data analysis," University of Padova, October 12-15, 2015.

"Introduction to categorical data analysis," Istat, Rome Italy, October 20-23, 2015.

"Introduction to categorical data analysis," USP-ESALQ, Piracicaba, Brazil, March 9-11, 2016.

"Analysis of clustered, categorical data," Istat, Rome Italy, May 11-12, 2016.

"Topics in categorical data analysis," University of Padova, May 16-29, 2016.

"Introduction to categorical data analysis," Portland State University, June 14-17, 2016.

"Modeling ordinal categorical data," for National Brazilian Symposium on Probability and Statistics (SINAPE), Porto Alegre, Brazil, July 27, 2016.

"Modeling ordinal categorical data," for American Statistical Association, Chicago, August 2, 2016.

"Discrete data analysis," for Royal Statistical Society, October 6-7, 2016.

"Introduction to categorical data analysis," University of Pavia, Italy, November 9-17, 2016.

"Modeling ordinal categorical data," for Central Arkansas chapter of American Statistical Association, Little Rock, Arkansas, February 23, 2017.

"Generalized linear modeling," for Università Cattolica del Sacro Cuore, Milano, Italy, April 9-26, 2018.

"Topics in categorical data analysis," University of Padova, May 2-9, 2018.

"Categorical data analysis," (with Maria Kateri) for American Statistical Association, Vancouver, July 31, 2018.

"Generalized linear modeling," for Università Cattolica del Sacro Cuore, Milano, Italy, April 2-12, 2019.

"Categorical data analysis," (with Bernhard Klingenberg) for American Statistical Association, Denver, July 29, 2019.

"Modeling ordinal categorical data," for Harvard School of Public Health, October 2, 2020.

Other Participation

Participant in Summer Research Institute on Statistical Inference for Stochastic Processes, Indiana University, 1974.

Short course on "Applied regression analysis" presented for Continuing Education Institute at annual meeting of American Sociological Association, Chicago, IL, September 1-2, 1977.

Chair, Reitz Lecture, IMS Annual Meeting, Toronto, August 16, 1983.

Attended SIAM Conference on "Nonlinear Optimization in Statistics," by P.T. Boggs and R.B. Schnable, Boston, MA, October 21, 1984.

Attended International Statistical Institute meeting, Amsterdam, August 15-17, 1985.

Discussant, General Methodology Lecture by Peter McCullagh, ASA annual meeting, Chicago, August 19, 1986.

Discussant, invited paper session on "Longitudinal polytomous data", ASA Annual Meeting, Anaheim, CA, August 6, 1990.

Discussant, invited paper session on "Paired comparisons for ordered categorical responses," ASA annual meeting, Atlanta, GA, August 20, 1991.

Discussant, invited paper session on "Modeling multivariate categorical data," ASA annual meeting, San Francisco, CA, August 1993.

Discussant, invited paper session on "Exact inference for categorical data," Biometrics meeting, Birmingham, AL, March 27, 1995.

External advisor for development and administration of Statistics Ph.D. program at Universidad Catolica de Chile, 1996.

Invited consultant, Merck meeting on stratification issues, Princeton, NJ, November 29, 2000.

Organizer of invited paper sessions at several ASA and Biometrics conferences.

Seminars Presented to Statistics, Biostatistics, or Mathematics Departments

Universities:

U. S. – Amherst College (2022), Bentley University (2009), Boston University (1988, 1992, 1998, 2002), Brown University (1988, 2002), Case Western Reserve University (1995), Colorado State University (1997), Columbia University (2000, 2003), Cornell University (1981, 1993, 2009), Emory University (1997), Florida International University (2008), Florida State University (1995), Harvard University (1988, 1992, 2002, 2008, 2009), Johns Hopkins University (1989, 2012), Medical University of South Carolina (2005), Memorial Sloan Kettering (1994), Michigan Tech University (1995), New York University (1996), North Carolina State University (1989, 2003), Northern Illinois University (1972, 1993, 1999, 2023), Ohio State University (2021), Oregon State University (1977, 1979, 2003),

University of Oregon (1979), Pennsylvania State University (1984, 1996, 1998 statistics, sociology), Rensselaer Polytechnic Institute (1972), Rice University (2000), Rutgers University (1996), Santa Fe Community College (2006), Southern Methodist University (1972, 2017), St. Jude Children's Research Hospital (1996), Tulane University (2000), University of California at San Diego (2005), Syracuse University (2022), University of Chicago (1997), University of Illinois (2006), University of Iowa (2006), University of Kentucky (1992), University of Maryland Baltimore County (2017), University of Massachusetts (1997, 1999), University of Michigan (1991, 2009), University of Minnesota (1999), University of North Carolina (1991, 2009), University of North Florida (1992, 2000), University of Pennsylvania (2002), University of Pittsburgh (1991), University of Rochester (1998, 2022), University of South Carolina (2008, 2023), University of Tennessee (1992), University of Vermont (1997), University of Washington (2018), University of Wisconsin (1993, 2001), Vanderbilt University (2012), Virginia Tech (2007), Wright State University (2002), University of Wyoming (1997), Yale University (2005)

Argentina – Rosario University (2021)

Australia – Univ. of Melbourne (2003, 2006), University of New South Wales (2006)

Austria – Univ. of Innsbruck (1997), Vienna University of Economics and Business (2013), Johannes Kepler University (2015)

Belgium – Limburgs Universitair (1992, 2001)

Brazil – Campinas (1990), IMPA (Rio, 1990), ESALQ (Sao Paulo - Piracicaba, 1990, 2016)

Britain – London (1982), Oxford (1981, 1994), Sheffield (1981), Bath-Bristol (1981, 1995), Leicester-Nottingham (1982), Imperial (1982), Liverpool (1988), Southampton (1994, 1995), Kent (1995), St. Andrews (1995), Cambridge (1995), London School of Economics (1995, 2016), De Montfort University (1999), London School of Hygiene and Tropical Medicine (2000, 2011, 2015), Lancaster (2008), University College (2023)

Canada – Manitoba (2006)

Chile – Universidad Catolica de Chile (1996)

China – Guangzhou University (2013)

France – INSERM (1997), Univ. of Paris 5 (Rene Descartes) (1998), Univ. of Paris 7 (Denis Diderot) (1998), Univ. of Toulouse (1998)

Germany – Munich (1997, 2016), Aachen (2016)

Greece – Piraeus (2006, 2008, 2010)

Italy – Rome (1982, 2015, 2016, 2018, 2019, 2021), Pavia (2016, 2019), Perugia (1984, 1999, 2016, 2021), Padova (1991, 2000, 2005, 2009, 2011, 2015, 2016, 2018, 2021), Bocconi (1993), Firenze (1995, 1999, 2003, 2005, 2006, 2015, 2019), Foggia (2005), Milano (2014), Milano-Bicocca (2005, 2016, 2017), Milano-Cattolica (2016, 2018, 2019), Molise (2005, 2017), Napoli (2013, 2018), Palermo (2004), Parma (2000, 2005, 2023), Bologna (2015, 2017), Calabria (2017), Torino (2017), Trento (2019), Venezia (2021)

Mexico – National University of Mexico (2001)

Netherlands – Groningen (1993, 2012), Tilburg (1997)

New Zealand – Waikato University (1999), Victoria University (2003, 2020)

Norway – University of Oslo (2007)

Portugal – University of Aveiro (2011)

Switzerland – ETH (1992), Neuchatel (1992), Lausanne (2004), USI Lugano (2018)

Taiwan – National Central University (1995), National Cheng-Kung University (1995)

Companies:

Abbott Labs (1993, 1999), AstraZeneca (2002, 2005), Bell Labs / AT&T (1995), Boehringer Ingelheim Pharmaceutical Company (1989), Boeing (1991), Bristol-Myers-Squibb (1992), Ciba-Geigy Pharmaceutical Company (1988), Eli Lilly (2002), FDA (2004), Glaxo-Wellcome (Greenham, England; 1999), R.W. Johnson Pharmaceutical Research Institute (1992), Kellogg (1995), Mayo Clinic (2008), Merck Research Laboratories (1997, 2002), Merrell-Dow Research Labs (1986), New England Research Institutes (2000), Parke-Davis (1995), Pfizer (NYC and Ann Arbor, 2003), Procter & Gamble (1994), Purdue Pharma (2004), Rand Corp. (2005), Rhone-Poulenc Rorer (France and U.S.) (1991), Pratt & Whitney (1994), Quintiles (2004), Schering-Plough (2003), Syntex Labs (1994), Upjohn Company (1985), Wyeth-Ayerst (1992)

External Funding

Support from Harris Corporation, Melbourne, FL to develop and teach course in applied statistics M.S. degree for industry, 1983-84.

Seed money grant from Department of Sponsored Research, University of Florida, 1978.

Supported at various times as statistician on other grants received by scientists at the University of Florida.

"Modelling repeated categorical responses," NSF, principal investigator, funded 2001-2005 for 238,020 direct and indirect costs (includes support for graduate student).

"Statistical inference for sparse categorical data," NIH, principal investigator, funded 2001-2005 for 314,436 direct and indirect costs (includes support for graduate student).

"Modelling repeated categorical responses," NSF, principal investigator, funded 1998-2001 for 162,689 direct and indirect costs (includes support for graduate student).

"Statistical inference for sparse categorical data," NIH, principal investigator, funded 1998-2001 for 256,486 direct and indirect costs (includes support for graduate student).

"Statistical inference for sparse categorical data," NIH, principal investigator, funded 1994-1998 for 316,039 direct and indirect costs (includes support for graduate student).

"Statistical inference for sparse ordinal categorical data," NIH, principal investigator, funded 1990-1994 for 221,000 direct and indirect costs (includes support for graduate student).

"Estimation problems for ordered categorical data," NIH, principal investigator, funded 1984-88 for 112,000 (includes support for graduate student).

Support from Ciba-Geigy Co. for graduate student, 12,000, 1992.

Graduate Students

Supervised Ph.D. dissertations for John Schollenberger (joint with D. Wackerly, 1982, Otsuka Maryland Research Institute), Abbas Kezouh (1984, McGill University), Joseph Lang (1992, Univ. of Iowa), Donguk Kim (1994, Sungkyunkwan University, Korea), I-Ming Liu (1995, Victoria Univ.), Atalanta Ghosh (joint with M. Ghosh, 1996, Eli Lilly), Brent Coull (1997, Harvard Univ.), Beiyao Zheng (1997, Genentech), Ralitza Gueorguieva (1999, Yale Univ.), Jonathan Hartzel (1999, Merck), Yongyi Min (2003, United Nations), Bernhard Klingenberg (joint with James Booth, 2004, Williams College), Euijung Ryu (2007, Mayo Clinic), Tezcan Ozrazgat (2011), Anestis Touloumis (2011).

Served on about 85 Masters and Ph.D. Committees

External examiner for Ph.D. dissertations at Australian National University, Monash University, and University of Queensland in Australia, University of Toronto in Canada, Tilburg University in the Netherlands, Hasselt University and Limburgs Universitair in Belgium.

Teaching Experience

Undergraduate courses taught:

    Introduction to Probability and Statistics (375 students per section)
    Statistics for Social Scientists
    Statistics for Education
    Mathematical Statistics
    Introduction to Categorical Data Analysis

Graduate courses taught:

    Analysis of Categorical Data
    Advanced Categorical Data Analysis
    Generalized Linear Models
    Foundations of Linear and Generalized Linear Models
    Statistical Methods (Agric., Bus., Psych., and Soc. Sci. Sections) (2 semesters)
    Introduction to Theoretical Statistics (2 semesters)
    Advanced Statistical Theory (2 semesters)
    Stochastic Processes
    Stochastic Models for Social Processes (special topics)

Consulting Experience

Consulting experience includes American College Testing (1985), Kirkland & Ellis Law Firm, Washington, D.C. (1979-1980), Johnson & Johnson (1995), Wyeth-Ayerst (1994, 1997, 1998), Boeing Co. (1992), SPSS (1993-94), Vistakon (1995-1996), Unilever (1996), New Jersey Public Defender's Office (1997), Sabine Musical Equipment (1998), Merck pharmaceutical (2000, 2002), Gore-Lieberman legal team (2000), various news organizations including Miami Herald, ABC news, WBZ.

Research Interests

Research interests include categorical data analysis, social statistics, biostatistics, generalized linear models, and longitudinal data analysis

Professional Activities

Member:
    American Statistical Association
    Biometric Society
    Institute of Mathematical Statistics
    Royal Statistical Society

Editor:
    Review Editor, *Journal of the American Statistical Association* (1993-1995)
    Book Review Editor, *The American Statistician* (1994-1995)
    Section Editor, *Encyclopedia of Biostatistics* (1996-1998, 2nd ed. 2001-5)

Editorial Board:
    American Statistician (1980-1987)
    Statistics and Probability Letters (1988-1994)
    Journal of the American Statistical Association (1990-1993, 2002-2005)
    Communications in Statistics (1987-1992)
    Statistics in Medicine (1996-2002)
    Journal of the Royal Statistical Society, Series A (2001-2005)

Advisory Board:
    Statistical Modelling: An International Journal (2000-) *Metron* (2006-)

Editorial Collaborator:
    Mathematical Reviews (1975-1993)
    Current Index to Statistics (1978-1988)

Organizational Service:
    Elected member of ENAR (Biometric Society) Regional Committee (1990-1992)
    Candidate for President of ENAR, 1992
    Nominations Committee, IMS, 1993-1994
    Chair, Search Committee for Review Editor of *JASA*, 1997

Program Organization:
    Program Chair, IMS Eastern Regional Meetings, Orlando, FL, March 11-14, 1984.
    Program Committee (Chair, General Methodology), ASA annual meeting,
        Washington, D.C., August, 1989.
    Scientific Program Committee, International Workshop on Statistical Modelling,
        Galway, Ireland, July 3-7, 2006
    Program Committee, annual UF Statistics workshop, 2010.

Grant Referee:
    National Science Foundation (Programs: Statistics and Probability, Sociology, Environmental Biology, Methodology, Measurement and Statistics, Measurement Methods and

Data Analysis, Methodology and Statistics in the Social Sciences, Visiting Professorships for Women)

National Institutes of Health: Member of Statistics Study Section, 1995, 1997, 1998, 1999

Canadian, British, Australian, Dutch, and Israeli granting agencies.

Departmental Committees at Florida

Faculty Search Committee (Member: 1974-80, 82-83, 85-86, 89-90, 96-97 (POG), 97-98, 98-99, 99-00, 01-02; Chair: 1980-81, 83-84, 86-87, 87-88, 90-91, 91-92, 93-94)
Comprehensive Exam Committee (1972-74, 75-76, 77-81, 86-91, 92-93, 01-02)
Undergraduate Advisor (1972-75, 1990)
Assistantship Committee (1982-84)
Departmental Advisory Committee (1982-90, Chair 1984-87)
Undergraduate Program Committee, Chair (1977-79)
Graduate Coordinator (1984-88, 1990)
Curriculum Committee, Chair (1989-1990)
Research Committee (1991-94)
Teaching awards (TIP) committee (1996)
Teaching evaluation committee (1995-1997, 2000-2005)
Seminar chair (1997-1998)
Graduate program committee (1996-2001)
Department aspirations ad hoc committee, Chair (1999)
Political science search committee for methodologist (2000)
Organized section on departmental website about history of the Statistics Department at UF (2001)

University Committees at Florida

Social Sciences Council (1972-78)
Minority Affairs Committee (1972-76)
University Senate, Elected Member (1974-77), Appointed Member (1984-86, 1994-96)
College of Liberal Arts and Sciences, Tenure and Promotion Committee (1997-2000); chair 1999-2000
College of Liberal Arts and Sciences, Steering Committee (1999-2000)