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EDUCATION

Ph.D., Statistics, August 1983. University of Minnesota, Minneapolis, Minnesota.

B.S., Mathematics (With Honors), May 1979. University of Wisconsin-La Crosse, La Crosse, Wisconsin

PROFESSIONAL POSITIONS

1995 to present. Professor, Oberlin College

2008 to 2009. Senior Advisor to the Dean, Oberlin College

2006 to 2008. Acting Dean, Oberlin College

2004 to 2005. Acting Dean, Oberlin College

2002 to 2004. Associate Dean, Oberlin College

1989 to 1995. Associate Professor, Oberlin College

1992 to 1994. Assistant Provost, Oberlin College

1992 to 1993. Honorary Fellow, University of Wisconsin - Madison

1986 to 1989. Assistant Professor, Oberlin College

1984 to 1986. Assistant Professor, University of Florida

1983. Assistant Professor, University of Minnesota

PUBLICATIONS

Books

STAT2: Building Models for a World of Data, preliminary edition. (with A. Cannon, G. Cobb, B. Hartlaub, J. Legler, R. Lock, T. Moore, and A. Rossman) (2013) New York, NY: Freeman 624 Pp.

Statistics for the Life Sciences, 4th ed. (with M. Samuels and A. Schaffner) (2012) Boston, MA: Prentice Hall 654 Pp.

Student's Solutions Manual for Statistics for the Life Sciences, 4th ed. (with A. Schaffner) (2012) Boston, MA: Prentice Hall 81 Pp.

STAT2: Building Models for a World of Data, preliminary edition. (with A. Cannon, G. Cobb, B. Hartlaub, J. Legler, R. Lock, T. Moore, and A. Rossman) (2011) New York, NY: Freeman 519 Pp.

Activity-Based Statistics, Instructor Resources, 2nd ed. (with R.L. Scheaffer, M. Gnanadesikan, A. Watkins, and T. Erickson) (2004) Emeryville, CA: Key College Publishing 388 Pp.

Activity-Based Statistics, Student Guide, 2nd ed. (with R.L. Scheaffer, M. Gnanadesikan, A. Watkins, and T. Erickson) (2004) Emeryville, CA: Key College Publishing 258 Pp.

Statistics for the Life Sciences, 3rd ed. (with M. Samuels) (2003) Upper Saddle River, NJ: Prentice Hall 736 Pp.

SEAQL manual (with A. Christensen, M. Kimmel, and J. Ascuitto) (2000) Alexandria, VA: American Statistical Association 87 Pp.

Statistics for the Life Sciences, 2nd ed. (with M. Samuels) (1999) Upper Saddle River, NJ: Prentice Hall 683 Pp.

Advanced Modeling and Matrices (with G. Burrill, J. Burrill, and J. Landwehr) (1998) Orangeburg, NY: Dale Seymour 132 Pp.

Advanced Modeling and Matrices, Teacher's Edition (with G. Burrill, J. Burrill, and J. Landwehr) (1998) Orangeburg, NY: Dale Seymour 202 Pp.

Exploring Centers (with H. Kranendonk) (1998) Menlo Park, CA: Dale Seymour 136 Pp.

Exploring Centers, Teacher's Edition (with H. Kranendonk) (1998) Orangeburg, NY: Dale Seymour 212 Pp.

An Electronic Companion to Statistics (with G. Cobb and J. Cryer, assisted by P. Renz and K. Jennings) (1997) New York: Cogito Learning Media, Inc. 356 Pp. plus a CD-ROM.

Activity-Based Statistics, Instructor Resources (with R.L. Scheaffer, M. Gnanadesikan, and A. Watkins) (1996) New York: Springer-Verlag 359 Pp.

Activity-Based Statistics, Student Guide (with R.L. Scheaffer, M. Gnanadesikan, and A. Watkins) (1996) New York: Springer-Verlag 252 Pp.

Data Analysis: An Introduction (1992) Englewood Cliffs, NJ: Prentice Hall 122 Pp.

Articles

Ethical Dilemmas in Writing and Publishing Statistical Texts. In *JSM Proceedings*, Statistical Education Section. (2011) pp. 190-192. Alexandria, VA: American Statistical Association.

Statistics and Life. *Canterbury Mathematical Association Newsletter* December 2003, pp. 2-8.

Ask Dr. STATS. *STATS* **21** 24-25 (1998)

An Activity-Based Statistics Course (with M. Gnanadesikan, R.L. Scheaffer, and A. Watkins). *Journal of Statistics Education* **5** (2) (1997)

<http://www.amstat.org/publications/jse/v5n2/gnanadesikan.html>

Discussion (of three papers on teaching Bayesian statistics in an introductory course). *The American Statistician* **51** (3) 262-263 (1997)

Science Quantitative Literacy in Action. *Proceedings of the Section on Statistical Education, American Statistical Association* (1995) pp. 70-71.

The Science Lab: An Opportunity for Real Statistical Analyses in the Schools. *Proceedings of the Section on Statistical Education, American Statistical Association* (1993) pp. 39-41.

Discussion of "Student Projects in Statistics Courses." *Proceedings of the Section on Statistical Education, American Statistical Association* (1992) pp. 161-162.

Bibliography of Materials for Teaching Statistics (with T.L. Moore). In *Statistics for the Twenty First Century*, (1992) ed. S.P. Gordon and F.S. Gordon, Mathematical Association of America, pp. 273-280.

Using A Class Project To Teach Statistics. *Proceedings of the Section on Statistical Education, American Statistical Association* (1991) pp. 26-28.

Statistics within Departments of Mathematics at Liberal Arts Colleges (with T.L. Moore). *Amer. Math. Monthly*, **98** (5) 431-436 (1991).

Surveys. *NLA News*, **7** (5) 4-7 (1991).

Intercessory Prayer As Medical Treatment? An Inquiry (with M. Zimmerman). *Skeptical Inquirer*, **15** (2) 177-180 (1991).

Library Support for Science Research and Education in Leading Liberal Arts Colleges: Survey Results (with A.S. Ricker). *College & Research Libraries*, **51** (5) 401-412 (1990).

Data Analysis. *NLA News*, **6** (8) 7-11 (1990).

Simpson's Paradox. In *Probability Examples*, (1989) ed. J.G. Truxal, Stony Brook, NY: Research Foundation of SUNY, pp. 63-66.

Two-Stage Bandits (with M.K. Clayton). *Annals of Statist.*, **16** (2) 887-894 (1988).

On Objectivity and Subjectivity in Statistical Inference: A Response to Mayo (with M.K. Clayton). *Synthese*, **67**: 369-379 (1986).

Bayesian Multistage Decision Problems. *Annals of Statist.*, **14** (1) 283-297 (1986).

A Note on Parameter-Effects Curvature (with R.D. Cook). *J. Amer. Statist. Assoc.*, **80** (392) 872-878 (1985).

Biopotency of Methionine Sources for Young Turkeys (with S. Noll, P. Waibel, and R.D. Cook). *Poultry Science*, **63**: 2458-2470 (1984).

Reviews and Reports

How and Why Mathematics is Used. In *Amstat News* (April 2006) pp. 20-21.

The Guidelines for Assessment and Instruction in Statistics Education (GAISE) College Report (with Aliaga, M., Cobb, G., Cuff, C., Garfield, J., Gould, R., Lock, R., Moore, T., Rossman, A., Stephenson, R., Utts, and J., Velleman, P. (2005).

<http://www.amstat.org/education/gaise/GAISECollege.pdf>

A Report on Invited Paper Meeting 39: Bayesian Methods in Statistics Education. In *Bulletin of the International Statistical Institute, 51st Session Proceedings, Tome LVII, Book 3* (1998) pp. 234-235.

Review of DASL – The Data and Story Library. *The American Statistician* **51** (1) 97-98 (1997).

Review of *Teaching Statistical Concepts*, by Anne Hawkins, et al. *The American Statistician* **48** (3) 247-248 (1994).

Review of *Proceedings of ISI Roundtable Conference on the Training of Statistics Teachers*, Anne Hawkins, ed. *The American Statistician* **47** (1) 41-42 (1993).

A Report on the Hogg Workshop in Statistics Education. In *Proceedings of the Third International Conference on Teaching Statistics. Vol. 2* (1991) pp. 118-120.

GRANTS AND AWARDS

Technical Educator Award for 1996, awarded by the Cleveland Technical Societies Council.

Fellow of the American Statistical Association. 1995.

National Science Foundation Grant no. ESI-9355717, “Science Education and Quantitative Literacy.” June 1994 to May 1998.

Council on Library Resources Grant no. 882, “Library Support for Science Research and Education in Leading Liberal Arts Colleges - 1991.” September 1991 to June 1992.

National Institutes of Health Grant no. 1 R15 CA47256-01A1, “Dose Escalation Schemes for Phase I Clinical Trials.” September 1989 to August 1992.

Alfred P. Sloan Foundation Special Leave Grant to support the writing of an elementary statistics textbook supplement on data analysis. June 1989 to August 1990.

Council on Library Resources Grant no. CLR 4048-E, “Library Support for Science Research and Education in Leading Liberal Arts Colleges.” January to June 1989.

Oberlin College Keck Fellowship. August 1988 to January 1989.

Quantitative Proficiency Curriculum Development Award, supported by a grant from the Alfred P. Sloan Foundation. July to August 1988.

INVITED LECTURES

“Cancer clusters by random allocation.” CAUSE activity series webinar. January 2013.

“Stats2: An applied statistics modeling course.” The Eighth International Conference on Teaching Statistics, Ljubljana, Slovenia. July 2010.

Panel member, “The 20/20 of Statistical Education – Where We’ve Been and Where We’re Going.” Joint Statistics Meetings, Salt Lake City. August 2007.

“Be a Cathedral Builder.” Commencement address, University of Wisconsin-La Crosse. May 2005.

“When am I going to use this? Every day!” New Zealand Association of Mathematics Teachers Annual Conference, Hamilton, New Zealand. July 2003.

“Thinking with Data.” Next Steps in Mathematics Teacher Development Workshop, sponsored by the National Research Council, Washington, D.C. March 2003.

Moderator of Panel Discussion on “Mathematics, Statistics, and Quantitative Literacy.” Joint Statistics Meetings, New York City. August 2002.

“Data Driven Activities: Teaching Statistics Through Mathematics.” The Sixth International Conference on Teaching Statistics, Cape Town, South Africa. July 2002.

Discussant of “Some Current Research in Statistics Learning K-12.” Joint Statistics Meetings, Atlanta. August 2001.

“Statistical Literacy and Statistical Competence in the Twenty-First Century.” National Council of Teachers of Mathematics 78th annual meeting, Chicago. April 2000.

“Statistics Education K-16: An Overview.” Case Western Reserve University, Cleveland. January 2000.

“The Role of Technology in Statistics Education.” Silver Anniversary Conference, Department of Statistics, The Ohio State University, Columbus. October 1999.

Discussant of “NCTM and Statistics: A Profile of Current Activities.” Joint Statistics Meetings, Baltimore. August 1999.

“Using Activities in STAT 101.” The Fifth International Conference on Teaching Statistics, Singapore. June 1998.

“A Data-Driven Curriculum.” National Council of Teachers of Mathematics Eastern Regional Conference, Cleveland. November 1997.

“Finding Your Center.” Greater Cleveland Council of Teachers of Mathematics meeting. September 1997.

“Regression Modeling with a Graphing Calculator.” National Council of Teachers of Mathematics 75th annual meeting, Minneapolis. April 1997.

“Activities for Introductory Statistics.” Midwest Conference on Teaching Statistics, Oshkosh, Wisconsin. March 1997.

“The AP Statistics Course and Implications for Post-Secondary Statistics.” Board on Mathematical Sciences Department Chairs Colloquium, Washington, D.C. October 1996.

Discussant of “Teaching Statistics to Nonstatisticians.” American Statistical Association Chapter workshop, Cleveland. October 1996.

Discussant of “Updating Opinions: Bayesian Possibilities for Introductory Statistics.” Joint Statistics Meetings, Chicago. August 1996.

“Themes and Activities for Introductory Statistics.” Conference on Trends in Introductory Applied Statistics, Framingham, Massachusetts. March 1996.

“Quantitative Literacy and Science Education.” Annual Meeting of the American Association for the Advancement of Science, Baltimore. February 1996.

“Activity-Based Statistics.” Teaching of Statistics and Probability Workshop, Cleveland. October 1995.

“Science Quantitative Literacy in Action.” Joint Statistics Meetings, Orlando. August 1995.

“Quantitative Literacy: A Data Driven Curriculum.” Cleveland Chapter of the American Statistical Association. January 1995.

“Probability and Statistics Throughout the Mathematics Curriculum.” Keynote address, Northeast Ohio Education Association workshop, Lorain County Community College. October 1994.

“Science Education and Quantitative Literacy.” The Fourth International Conference on Teaching Statistics, Marrakech, Morocco. July 1994.

“Science Education and Quantitative Literacy.” Spring banquet of the Case Western Reserve University chapter of Sigma Xi. May 1994.

“Student Preparation for Employment.” Keynote address, Professional Development Workshop for Middle School and High School Mathematics Teachers, Spartanburg, South Carolina. February 1994.

“The Science Lab: An Opportunity for Real Statistical Analyses in the Schools.” Joint Statistics Meetings, San Francisco. August 1993.

“Discussion of ‘Student Projects in Statistics Courses.’” Joint Statistics Meetings, Boston. August 1992.

“Statistics -- Who Needs It? Do You Believe in God?” Denison University. April 1992.

“The Best Ideas I Know For Teaching Statistics.” North Carolina State University. October 1991.

“Using A Class Project To Teach Statistics.” Joint Statistics Meetings, Atlanta. August 1991.

“Statistical Topics for Secondary Schools.” National Council of Teachers of Mathematics 69th annual meeting, New Orleans. April 1991.

“Quantitative Literacy.” Greater Cleveland Council of Teachers of Mathematics meeting. March 1991.

“Fibonacci and the Design of Phase I Trials: A Bayesian Perspective.” University of Michigan. October 1990.

“A Report on the Hogg Workshop in Statistics Education.” The Third International Conference on Teaching Statistics, Dunedin, New Zealand. August 1990.

“Applications of Statistical Decision Theory.” Institute for Secondary Mathematics and Computer Science Education, Kent State University. July 1990.

“Fibonacci, Medicine, and Statistics.” John Carroll University. March 1990.

“Does God Exist? - Decisions, Decisions,” Cleveland Chapter of the American Statistical Association. January 1990.

“Fibonacci, Medicine, and Statistics.” Ohio Statistics Conference, Akron, Ohio. November 1989.

“Library Support for Science in Leading Liberal Arts Colleges.” Association of College and Research Libraries Fifth National Conference, Cincinnati. April 1989.

“Does God Exist? - Decisions, Decisions,” Ohio Statistics Conference, Bowling Green, Ohio. November 1987.

“A Look at the Bates-Watts Curvatures.” University of Guelph Workshop on Curvature in Statistics. June 1984.

PROFESSIONAL EXPERIENCE

Editing

Associate Editor, *The American Statistician*. July 1996 to December 1999.

Editor, *STATS*. December 1992 to December 1995.

Associate Editor, *Journal of Statistics Education*. October 1992 to December 1996.

Teaching and Consulting

Members, Greater Cleveland R Group; speaker at January 2013 meeting. 2012 to present.

Consultant on Medicare and Medicaid fraud cases, working with Barraclough LLC. 2012 to present.

Presenter, workshop on Preparing Mathematicians to Educate Teachers, sponsored by the Mathematical Association of America with a grant from the National Science Foundation. Oswego, NY. June 2004.

Member, Mathematics Education Portfolio Review Panel for the Education and Human Resources Directorate of the National Science Foundation. February 2003 to July 2004.

Member, Park City Mathematics Institute Statistics Education Research Group. July 2000 to December 2006.

Member, Visiting Committee for the Department of Mathematics of Smith College, Northampton, MA. November 2000.

Reader for Advanced Placement Statistics exams, Lincoln, NE. June 2000 to June 2003.

Evaluator for NSF funded project “A Probability/Activity Approach for Teaching Introductory Statistics.” December 1999.

Member, Visiting Committee for the Division of Natural Sciences of New College, Sarasota, FL. January 1997.

Presenter and project developer for “AP Statistics Institute” sponsored by Teachers Teaching with Technology. Dallas. June 1996.

Taught in Science Education and Quantitative Literacy workshops for high school and middle school science teachers, sponsored by the American Statistical Association with a grant from the National Science Foundation. July 1995 to July 1997.

Member, Advisory Panel for the development of *ActivStats*, a multi-media product for statistics education. April 1995 to January 1997.

Member, Visiting Committee for the Department of Mathematics of Kenyon College, Gambier, OH. April 1994.

Evaluator for NSF funded project “Technology-Based Learning: Exploring Statistical Concepts and Methods.” July 1993 to August 1995.

Presenter in “Statistical Thinking and Teaching Statistics” workshop sponsored by the Mathematical Association of America with a grant from the NSF. Bowdoin College, June 1993, University of Tennessee-Knoxville, June 1994, University of California-Santa Barbara, June 1995, and Dickinson College, June 1996.

Presenter in Mathematical Association of America sponsored minicourse “Teaching the Introductory Statistics Course.” San Antonio. January 1993.

Member, Advisory Committee, and contributing author for NSF sponsored project “A Data-Driven Curriculum Strand for High School.” August 1992 to September 1997.

Invited participant in a Summer Research Conference on Adaptive Designs. Mt. Holyoke College. July 1992.

Invited participant in a Pew Foundation supported Workshop on Statistical Education. Dartmouth College. July 1991.

Statistical consultant on NSF sponsored Mathematics Teacher Preparation Improvement Project at Western Michigan University. March 1991 to June 1993.

Member, Leadership Team for NSF sponsored Activity-Based Introductory Statistics Project. December 1991 to December 1995. (Member of Advisory Committee October 1990 to December 1991.)

Invited participant in an NSF sponsored conference, “Calculus for All Users.” San Antonio. October 1990.

Statistical consultant for the teacher's guide to accompany FUTURES, a PBS series on mathematics education. July 1990.

Invited participant in an NSF supported Workshop on Statistical Education. University of Iowa. June 1990.

Taught in Quantitative Literacy workshops for high school teachers, sponsored by the American Statistical Association (with initial funding from a National Science Foundation grant). Charter member of the ASA/QL faculty. June 1989 to June 1997.

Taught a course in elementary statistics in the Project to Increase Mastery in Mathematics. Oberlin College. June to July 1988.

Committees and Other Service

Member, Editorial Board of CAUSE: The Consortium for the Advancement of Undergraduate Statistics Education. February 2002 to present.

Member, Steering Committee of TEAMS: Teacher Education: Assessment, Methods, and Strategies. February 2002 to July 2007.

President, Oberlin Board of Education. January 2000 to December 2001. (Board Member 1996-2003.)

Chair, Statistics Education Section of the American Statistical Association. January 2002 to December 2002. (Member of Executive Committee 2001-2003.)

Member, Teachers Teaching with Technology Academic Council (Academic Coordinator for statistics institutes). October 1996 to March 2004.

Member, Program Committee for the 5th International Conference on Teaching Statistics. May 1996 to July 1998.

Member, Program Committee for the 51st Session of the International Statistical Institute. January 1996 to August 1997.

Member, Grant review panel for the Division of Undergraduate Education of NSF. January 1996.

Member, Grant review panel for the Division of Undergraduate Education of NSF. August 1992.

Member, Journals Management Committee of the American Statistical Association. May to December 1992.

Chair, American Statistical Association ad hoc committee to evaluate a possible merger between *Chance* and *STATS* magazines. May to August 1992.

Member (Institute of Mathematical Statistics representative), Committee to prepare a brochure on Careers in Statistics. March 1992 to December 1996.

Member, Executive Committee of the Statistics Education Section of the American Statistical Association. January 1992 to December 1994.

Convener, Isolated Statisticians group at annual Joint Statistics Meetings. 1991 to 1998.
Maintainer of isostat listserv. 1993 to present.

Chair, American Statistical Association ad hoc committee to evaluate the magazine *STATS*. June 1991 to April 1992.

Member, 1992 ASA Winter Conference Program Committee. September 1990 to January 1992.

Member, Task Force on Statistics in Science, a joint venture of the American Statistical Association and the National Science Teachers Association. March 1990 to June 1995.

Member, Committee on the American Statistics Poster Competition. September 1989 to August 1994.

MEMBERSHIPS

American Statistical Association
Statistics in the Liberal Arts Workshop
International Association for Statistical Education