# W. Robert Stephenson

• DEGREES HELD:

Ph.D. University of Connecticut, 1979, Statistics M.S. University of Connecticut, 1976, Statistics B.A. Gettysburg College, 1974, Mathematics

- EXPERIENCE:
  - Department of Statistics, Iowa State University Professor, University Professor and Morrill Professor Emeritus 1/2018 – present Morrill Professor 9/2014 – 12/2017 University Professor in LAS, 9/2000 – 12/2018 Professor of Statistics, 9/1996 – 12/2018t Associate Professor of Statistics, 9/1989 - 8/1996 Assistant Professor of Statistics, 9/1979 - 8/1989
  - Department of Statistics, University of Newcastle, Australia Visiting Professor of Statistics, 9/1989 - 6/1990
  - Department of Statistics, University of Connecticut Instructor in Statistics, 9/1978 - 6/1979
- AWARDS and HONORS:
  - o American Statistical Association Waller Distinguished Teaching Career Award, 2015.
  - Louis Thompson Distinguished Undergraduate Teaching Award, 2011.
  - Cassling Family Faculty Award for Undergraduate Teaching, College of Liberal Arts and Sciences, 2011.
  - American Statistical Association Founders Award, 2009.
  - o Mu Sigma Rho (the National Statistical Honor Society) Statistical Education Award,
  - o 2001.
  - Master Teacher for the College of Liberal Arts and Sciences, 2000-2001.
  - University Professor in the College of Liberal Arts and Sciences, 2000.
  - Outstanding Distance Learning Faculty Award, General Motors Technical Education Program, 2000.
  - Fellow of the American Statistical Association, 1995.
  - American Statistical Association Section on Statistical Education Award for the best contributed paper, 1995.
  - James Huntington Ellis Award for Excellence in Undergraduate Introductory Teaching, 1994-1995.
  - Iowa State University Foundation Award for Mid-Career Achievement in Teaching, 1991-1992.
  - Outstanding Academic Advisor for the College of Sciences and Humanities, 1986-1987.
  - Recipient of a Student Alumni Association Outstanding Academic Advising Award for 1985.
  - 1985 Honorary Faculty Member of Lampos, the College of Sciences and Humanities Honorary.

- o Phi Kappa Phi
- Mu Sigma Rho, the National Statistical Honor Society
- Phi Beta Kappa

## • EDITORIAL ACTIVITIES:

- o Editor, Journal of Statistics Education, 2004-2006
- Editorial Board Member, *Journal of Statistics Education*, 1993-1995, 2000-2003, 2007-2017.
- o Editorial Board Member, STATS, the magazine for students in statistics, 1993-2001
- Associate Editor, *Technometrics*, 1993-1998
- o Member, Editorial Board, Selected Tables in Mathematical Statistics, 1990-1996

## • TEACHING:

A typical teaching assignment is 4 courses per year primarily at the introductory and intermediate undergraduate level. Courses taught on a regular basis include:

- STAT 100: Orientation to Statistics
- STAT 101: Principles of Statistics (Course Coordinator)
- STAT 104: Introduction to Statistics (Course Coordinator)
- STAT 201: Introductory Statistical Concepts and Methods
- o STAT 301: Intermediate Statistical Concepts and Methods
- o STAT 401: Statistical Methods for Research Methods
- STAT 402: Statistical Design and Analysis of Experiments
- STAT 495: Applied Statistics for Industry I (Distance Education)
- STAT 496: Applied Statistics for Industry II (Distance Education)
- LAS 499: Internship (Faculty mentor of undergraduate students)
- STAT 599: Creative Component
- ADVISING:
  - Undergraduate: Approximately 10 undergraduate advisees per year.
  - Graduate: Serve as major professor for 1 graduate student per year. Serve as minor representative or outside member of the POS Committee for 4 to 8 graduate students per year.

Student	Degree	Date	Dissertation	
1. Barnet, Barb	Ph. D.	Dec. 1999	A comparison of the effects of	
	(Co-major Educ.)		using WWW simulations	
			versus hands-on activities on	
			the conceptual understanding	
			and attitudes of introductory	
			statistics students.	

Student	Degree	Date	Creative Component	
39. Vallejo, Janet	M.S.	Mar. 2016	An Investigation of the Seal Strength Test Method.	
38. Zhang, Wei	M.S.	Mar. 2012	ALEKS score as predictor of engineering student's success in Mathematics class at Iowa State University.	
37. Hoffman, Derek	M.S.	May 2007	Real-time Evaluation of Suitability of Data Sets for Data Splitting Cross-validation.	
36. Burger, Jude	M.S.	Jun. 2004	Using Logistic Regression Analysis to Determine the Division I Men's Basketball Teams Offered an Invitation to the NCAA Tournament.	
35. Prew, Paul	M.S.	Apr. 2004	A Comparison of a CUSUM/Shewhart Control Chart Scheme with a Shewhart Control Chart with Runs Rules.	
34. Besser, Michael	M.S.	Jan. 2004	Evaluating the Performance of Digitized Vision Data for the Predictive Modeling of Hog Carcass Yield and Quality.	
33. Balasz, Andrew	M.S.	Dec. 2003	Adapting Standard Control Chart Techniques for Automated Real-Time Data Monitoring.	
32. Ott, Ellis	M.S.	Aug. 2002	Man vs. Nature: A Fish Perspective.	
31. Brustman, Lisa	M.S.	Jan. 2002	Ceramic fiber design of experiments.	
30. Hanson, Julie	M.S.	May 2001	Evaluating statistical knowledge in an introductory statistics course.	
29. Chan, Lydia	M.S.	Apr. 2000	A study of meat quality.	
28. Carlson, Ian	M.S.	Dec. 1997	Gimme a D does defense or offense win NBA championships?	
27. Hung, Chin Liang	M.S.	Aug. 1997	Control charts for attributes: some variations.	
26. Dougherty, Dan	M.S.	Apr. 1995	Factorial design of experiments put into practice with industry.	
25. Althen, Greg	M.S.	Nov. 1994	Statistics education for process engineers.	
24. Parks, Dan	M.S.	Apr. 1994	On the distance and accuracy of selected golf balls, some designed experiments.	
23. Davidson, Brad	M.S.	Apr. 1994	Comparative study of statistical packages for introductory statistics courses.	
22. Johnson, Cheryl	M.S.	Jun. 1993	A comparative study of models to determine a most appropriate analysis for R12 refrigerant data.	
21. Kreisberg, Chinh	M.S.	May 1993	A statistical analysis of a wire coating experiment.	
20. Sawyer, Michelle	M.S.	Apr. 1993	A road map to solving a quality problem: A case study.	

Student	Degree	Date	Creative Component	
19. Becker, Lori	M.S.	Jul. 1992	Application of statistical quality control in	
			the paper products industry.	
18. Schillmoeller, Laura	M.S.	Apr. 1992	Analysis of survey responses and	
			questionnaire development for a resort	
			hotel.	
17. Andersen, Jeffrey	M.S.	Apr. 1992	The Box-Cox transformation and control	
			charts for individuals.	
16. Ross, Phillip	M.S.	Aug. 1991	An application of partial least squares to	
(co-Chair D. Rollins)			multivariate statistical process control.	
15. DuBois, Dawn	M.S.	Jun. 1991	Control charts for skewed data with	
			applications to hospital length of stay	
			data.	
14. Riddell, Jennifer	M.S.	Apr. 1991	Selected topics in industrial	
			experimentation with emphasis on	
			Plackett-Burman designs.	
13. Takle, Teri	M.S.	Jun. 1989	A comparison of factorial and one-at-a-	
			time designs as they apply to a chemical	
			reaction.	
12. Liu, I-Ming	M.S.	Jun. 1989	The cumulative sum chart.	
11. Shamsuddin, Hussein	M.S.	Apr. 1989	Discrete distributions used in estimating	
			population sizes.	
10. Chisolm, Barb	M.S.	Feb. 1989	Some aspects of quality control and	
			service industries.	
9. Murphy, Dennis	M.S.	Nov. 1988	A comparison of balanced and staggered	
			nested designs with applications.	
8. Lay, Alice	M.S.	May 1988	Design and analysis of mixture	
			experiments.	
7. Moore, Karen	M.S.	Apr. 1986	Identifying active effects in factorial	
			experiments.	
6. Calconao-Collazo, Jose	M.S.	Nov. 1985	Acceptance sampling in accounting.	
5. Hulting, Fred	M.S.	Oct. 1985	Statistical expert systems: A review and	
			an experiment.	
4. Lin, Jyh-Shiun	M.S.	May 1985	Nonparametric ANOVA.	
3. Jacobson, David	M.S.	Sep. 1983	Nonparametric analysis of covariance.	
2. Crowder, Stephen	M.S.	Feb. 1983	The rank transform regression.	
1. Stangl, Pam	M.S.	Aug. 1981	Nonparametric methods applicable to	
			censored data.	

### • RESEARCH:

#### • REFEREED PUBLICATIONS:

- 24. Buss, Ashley, Elkashef, Mohamed, **Stephenson, W. Robert** (2018), "Extracting More from Dynamic Modulus Data using Split-Plot Repeated Measures Analysis," *Journal of Testing and Evaluation*, Vol. 46, No. 1, pp. 351-364.
- 23. Demmer, Brian John, Devlin, Steve, **Stephenson, W. Robert**, Grewell, David (2017), "Comparison and Analysis of Flexibility for Cutlery Made from Biobased/Biodegradable and Petrochemical Materials," *Journal of Technology, Management, and Applied Engineering*, Vol. 33, No. 1.
- 22. Riedl, Jessica; Grewell, David; Kessler, Michael; Raman, D.R. and **Stephenson**, **Robert** (2014), "Peel and shear strength and tear resistance of ultrasonically sealed coextruded polyolefin films for packaging applications," *Welding in the World*, (58: 619-636.
- 21. Froelich, Amy G. and **Stephenson, W. Robert** (2013),"Does Eye Color Depend on Gender? It Might Depend on Who or How You Ask," *Journal of Statistics Education* [online], 21 (2), www.amstat.org/publications/jse/v21n2/froelich ds.pdf
- 20. Froelich, Amy G. and **Stephenson, W. Robert** (2013), "How Much do M&M's Weigh," *Teaching Statistics*, 35 (1), 14-20. Available on web at http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9639.2012.00515.x/pdf
- 19. Stephenson, W. R., Froelich, A. G., and Duckworth, W. M. (2010), "Using Resampling to Compare Two Proportions," *Teaching Statistics*, 32 (3), 66-71.
- 18. Froelich, A. G., Stephenson, W. R., and Duckworth, W. M. (2008), "Assessment of Materials for Engaging Students in Statistical Discovery," *Journal of Statistics Education* [online], 16(2), <u>www.amstat.org/publications/jse/v16n2/froelich.html</u>
- 17. Froelich, A. G., Duckworth, W. M., and **Stephenson, W. R.** (2005), "Training Statistics Teachers at Iowa State University," *The American Statistician*, 59(1), 8-10.
- 16. Duckworth, W. M. and **Stephenson, W. R.** (2002), "Beyond Traditional Statistical Methods," *The American Statistician*, 56(4), 230-233.
- 15. Stephenson, W. R. (2002), "Experiencing Statistics at a Distance," refereed portion of *The Proceedings of the 6th International Conference on the Teaching of Statistics*
- 14. **Stephenson, W. R.** (2001), "Statistics at a Distance," Journal of Statistics Education [On-line], 9(3). <u>www.amstat.org/publications/jse/v9n3/stephenson.html</u>
- 13. Groeneveld, R. A. and **Stephenson, W. R.** (1999), "Outcomes Assessment in the BS Statistics Program at Iowa State University," Assessment Practices in Undergraduate Mathematics," B. Gold, S. Kieth, W. Marion, eds., *MAA Notes #49*, Mathematical Association of America, Washington, DC, p. 49-58.
- 12. Lin, L. I. and **Stephenson, W. R.** (1998), "Validating an Assay of Viral Contamination," Chapter 7 in *Statistical Case Studies: A Collaboration Between Academe and Industry.*
- 11. Cross, J.S., Konatsu, S., Tanaka, J., Mieno, M., Suetsugu, Y., Sakaguchi, J., Moriyoshi, Y., and Stephenson, W. R. (1997), "Hydrogen Plasma Transport and Deposition of Films from a Solid Boron Source." Journal of Materials Science, 32, 3277-3282.

- 10. Bittle, R. R., **Stephenson, W. R.** and Pate, M. B. (1995), "An Experimental Evaluation of Capillary Tube-Suction Line Heat Exchanger Performance with HFC-152a. ASHRAE Transactions, 101, 3844: 1-12.
- 9. Bittle, R. R., **Stephenson, W. R.** and Pate, M. B. (1995), An Evaluation of the ASHRAE Method for Predicting Capillary Tube-Suction Line Heat Exchanger Performance. *ASHRAE Transactions* 101, 3918: 1-9.
- 8. **Stephenson, W. R.** (1991), "A Computer Program for the Quick and Easy Analysis of Unreplicated Factorials.," *Journal of Quality Technology*, 23, 63-67.
- 7. **Stephenson, W. R.** (1990), "A Study of Student Reaction to the Use of Minitab in an Introductory Statistics Course," *The American Statistician*, 44, 231-235.
- 6. Peterka, P. B. and **Stephenson, W. R.** (1990), "Nested Designs: A Tool for Process Engineers. *Chemical Engineering Progress*, 86, 12-15.
- 5. Stephenson, W. R., Hulting, F. L., and Moore, K. (1989), Posterior Probabilities for Identifying Active Effects in Unreplicated Experiments," *Journal of Quality Technology*, 21(3), 202-212.
- 4. Crowder, S. V., Jensen, K. L., **Stephenson, W. R.**, and Vardeman, S. B. (1988), "An Interactive Program for the Analysis of Data from Two Level Factorial Experiments via Probability Plotting," *Journal of Quality Technology*, 20(2), 140-148.
- 3. Stephenson, W. R., and Jacobson, D. (1985), "A Comparison of Nonparametric Analysis of Covariance Techniques," *Communications in Statistics Simulation and Computation*, 17(2), 1669-1684.
- 2. Stephenson, W. R., and Ghosh, M. (1985), "Two Sample Nonparametric Tests Based on Subsamples," *Communications in Statistics Theory and Methods*, 14(7), 1669-1684.
- 1. Stephenson, W. R. (1981), "A General Class of One-Sample Nonparametric Test Statistics Based on Subsamples," *Journal of the American Statistical Association*, 76(376), 960-966.

# • UNREFEREED PUBLICATIONS

- **Stephenson, W. Robert**, Hua, Chen, Johnston, Elgin, Kliemann, Wolfgang (2015), "Making Better Decisions on Placement in Mathematics Courses," *JSM Proceedings of the Section on Statistical Education, Alexandria, VA.*
- Stephenson, W. R. (2012), "Multiple Intelligences and Learning Statistics," ASA 2012 Proceedings of the Section on Statistical Education
- Froelich, A. G., **Stephenson, W. R.**, and Duckworth, W. M. (2006), "Further Assessment of Materials for Engaging Students in Statistical Discovery," ASA 2006 *Proceedings of the Section on Statistical Education*
- **Stephenson, W. R.**, Short, T., and Dietz, E. J. (2005), "The Journal of Statistics Education: an International Journal on the Teaching and Learning of Statistics," *ASA* 2005 Proceedings of the Section on Statistical Education
- Froelich, A. G., **Stephenson, W. R.**, and Duckworth, W. M., (2005), "Assessment of Materials for Engaging Students in Statistical Discovery," *ASA 2005 Proceedings of the Section on Statistical Education*

- Froelich, A. G., Stephenson, W. R., and Duckworth, W. M., (2004), "Engaging Students in Statistical Discovery," *ASA 2004 Proceedings of the Section on Statistical Education*, p 2660-2662.
- Duckworth, W. M. and **Stephenson, W. R.** (2003), "Resampling Statistics: Not just for statisticians anymore," *ASA 2003 Proceedings of the Section on Teaching Statistics in the Health Sciences*, p. 1280-1285.
- Koehler, K. and Stephenson, W. R. (2001), "Statistical Education Outreach = Unlimited Learning," *Proceedings of the 53rd Session of the International Statistical Institute*. Book 2, p. 239-242.
- Stephenson, Bob (2001), "AP Statistics," STATS: The Magazine for Students of Statistics, Winter, 2001, No. 30, p. 17-21.
- Djang, F. and **Stephenson, W. R.** (2000), "Planning a Study: How students answer free response questions on AP statistics exams," *ASA 2000 Proceedings of the Section on Statistical Education*, p. 198-203.
- Duckworth, W.M. and **Stephenson, W. R.** (2000), "Beyond Traditional Statistical Methods," *ASA 2000 Proceedings of the Section on Statistical Education*, p. 136-140.
- Duckworth, W.M. and **Stephenson, W. R.** (2000), "Statistical computing: An Undergraduate Course for the New Millennium," *ASA 2000 Proceedings of the Section on Statistical Education*, p. 253-255.
- Stephenson, Bob and Stern, Hal (2000), "AP Statistics," STATS: The Magazine for Students of Statistics, Spring, 2000, No. 28, p. 23-37.
- Stephenson, W. R. (1999), "Resources for AP Statistics Teachers: Subscriptions," ASA 1999 Proceedings of the Section on Statistical Education, p. 199-203.
- Stephenson, Bob (1999), "AP Statistics," STATS: The Magazine for Students of Statistics, Fall, 1999, No. 26, p. 15-18.
- Stephenson, Bob (1998), "Ask Dr. STATS," STATS: The Magazine for Students of Statistics, Fall, 1998, No. 23, p. 3.
- Stephenson, W. R., and Mertz, K. (1998), "Capability Analysis in Asymmetric Situations," ASA 1998 Proceedings of the Section on Quality and Productivity, p. 65-70.
- Stephenson, W. R., (1998), "Distance Education in the Department of Statistics at Iowa State University," *Newsletter of the ASA Section on Statistical Education*, Summer, 1998
- Stephenson, Bob, et. al. (1998), "Ask Dr. STATS," STATS: The Magazine for Students of Statistics, Spring, 1998, No. 22, p. 20-26.
- **Stephenson, Bob** and Witmer, Jeff (1998), "Ask Dr. STATS," *STATS: The Magazine for Students of Statistics*, Winter, 1998, No. 21, p. 24-25.
- Stephenson, Bob, and Lock, Robin (1997), "Ask Dr. STATS," *STATS: The Magazine for Students of Statistics*, Fall, 1997, No. 20, p. 23-25.
- Stephenson, Bob (1997), "Ask Dr. STATS," STATS: The Magazine for Students of Statistics, Spring, 1997, No. 19, p. 27-28.
- Stephenson, Bob (1997), "Ask Dr. STATS," STATS: The Magazine for Students of Statistics, Winter, 1997, No. 18, p. 26-27.
- Stephenson, Bob (1996), "Ask Dr. STATS," STATS: The Magazine for Students of Statistics, Fall, 1996, No. 17, p. 26-27.

- Stephenson, Bob (1996), "Ask Dr. STATS," STATS: The Magazine for Students of Statistics, Spring, 1996, No. 16, p. 22.
- Stephenson, Robert (1994), "The COOL Schools," STATS: The Magazine for Students of Statistics, Fall, 1994, No. 12, p. 23-26.
- Stephenson, Robert (1993), "The First (Last?) Statistics College Bowl," STATS: The Magazine for Students of Statistics, Spring, 1993, No. 9, p. 22-23.
- Stephenson, W. R. (1993), "Significant Effects of Outlying Observations: A Case Study," ASA 1993 Proceedings of the Section on Quality and Productivity, p. 59-64.
- Andersen, J. and **Stephenson, W. R.** (1992), "The Box/Cox Transformation and Individuals/Moving Range Charts," ASA 1992 Proceedings of the Section on Quality and Productivity, p. 136-141.
- DuBois, D., **Stephenson, W. R.**, Gibbard, R. and Shaw, C. (1991), "Control Charts for Hospital Length of Stay Data," *ASA 1991 Proceedings of the Section on Statistical Education*, p. 120-125.
- Stephenson, W. R. (1991), "Mu Sigma Rho: Supporting the Statistical Profession," *STATS: The Magazine for Students of Statistics*, Spring 1991, No. 5, p. 22.
- Stephenson, W. R. and Lancaster, C. (1990), "Mu Sigma Rho: Local Chapter Activities.," *STATS: The Magazine for Students of Statistics*, Spring 1990, No. 3, p. 21-22.
- **Stephenson, W. R.** (1989), "Mu Sigma Rho (μσρ): The National Statistical Honor Fraternity," *STATS: The Magazine for Students of Statistics*, Fall 1989, No. 2, p. 17-18.
- Stephenson, W. R. (1989), "Mu Sigma Rho (μσρ): The National Statistical Honor Fraternity," STATS: The Magazine for Students of Statistics, Spring 1989, No. 1, p. 17-18.
- Stephenson, W. R. (1988), "Directions for an Undergraduate Program within an Established Graduate Statistics Department," ASA 1988 Proceedings of the Section on Statistical Education, p. 57-60.
- Stephenson, W. R. (1987), "Students' Reaction to the Use of Minitab in an Introductory Statistics Course," ASA 1987 Proceedings of the Section on Statistical Education, p. 81-86.
- Stephenson, W. R. (1985), "Statistical Quality Control: Can we practice what we teach?" ASA 1985 Proceedings of the Section on Statistical Education, p. 98-102.
- Stephenson, W. R. and Ghosh, M. (1983), "Two Sample Nonparametric Tests Based on Subsamples," *Technical Report #206 Department of Statistics*, University of Florida.
- Gelfand, A. and **Stephenson, W. R.** (1983), "An examination of U. S. Appellate Court Opinions," *Proceedings of the Second Workshop on Law and Justice Statistics* 1983, Ed. by A. Gelfand, U. S. Department of Justice, Bureau of Justice Statistics, p. 37-45.
- Stephenson, W. R. (1982), "In Search of Undergraduates," ASA 1982 Proceedings of the Section on Statistical Education, p. 70-73.
- Stephenson, W. R. (1980), "Adaptive Tests Based on Certain Linear Rank Statistics," *ASA 1980 Proceedings of the Social Statistics Section*, p. 381-385.
- Gelfand, A. and Stephenson, W. R. (1979), "A Model for Precedential Value of Appellate Court Decisions," *ASA 1979 Proceedings of the Social Statistics Section*, p. 559-563.

#### BOOK REVIEWS

- (2004) Nonparametric Statistical Methods for Complete and Censored Data by M. M. Desu and D. Raghavarao in *Technometrics*, 46(4), 487-488.
- (2001) Introduction to Probability and Statistics for Engineers and Scientists, 2<sup>nd</sup> Ed. by S. Ross in *The American Statistician*, 55(1), 81-82.
- (1998) Applied Statistics: A First Course in Inference by F. Graybill, H. Iyer and R. Burdick in *Technometrics*, 40(4), 352-353.
- (1990) Distribution Free Tests by H. Neave and P. L.Worthington in *Technometrics*, 32(3), 454-455.
- (1990) Empirical Bayes Methods by J. S. Maritz and T. Lwin in *Journal of Quality Technology*, 22(3), 249-250.
- (1989) Introduction to Contemporary Statistical Methods, 2nd Ed. by L. Koopmans in *The Journal of the American Statistical Association*, 84(407), 836-837. (with Oscar Kempthorne)
- (1984) Introduction to Contemporary Statistical Methods, by L. Koopmans in *The Journal of the American Statistical Association*, 79(385), 228. (with Oscar Kempthorne)
- (1982) Ideas of Statistics by Leroy Folks in *The Journal of the American Statistical Association*, 77(377), 215.
- (1982) Elementary Statistics by D. Berry in *The Journal of the American Statistical Association*, 77(377), 215.

## • SPEECHES, SEMINARS, etc.

The table below lists the number of contributed and invited papers presented at various local, regional, national and international venues. Titles of recent presentations appear below the table.

	Invited	Contributed	Total
International	11	4	15
National	15	32	47
Regional/Local	18	10	28
	44	46	90

- **Stephenson, W. Robert**, Hua, Chen, Johnston, Elgin, Kliemann, Wolfgang (2015), "Making Better Decisions on Placement in Mathematics Courses," Contributed paper at the 2015 Joint Statistical Meetings, Seattle, WA 2015.
- **Stephenson, W. R.**, "Conditions and Consequences," Contributed paper at the 2014 Joint Statistical Meetings, Boston, MA, August 2014.
- Stephenson, W. R., "Multiple Intelligences and Learning Statistics," Contributed paper at the 2012 Joint Statistical Meetings, San Diego, CA, August 2012.
- **Stephenson, Bob**, "GAISE-ing at the Iowa Core," invited talk at the Iowa-Association of Mathematics Teacher Educators conference, Des Moines, IA, February 2012.
- **Stephenson, W. R.**, "Challenges in Teaching Large Lecture Sections in Introductory Statistics Courses," invited panel discussion session at the 2010 Joint Statistical Meetings, Vancouver, BC, Canada, August 2010.

- **Stephenson, W. R.**, "Diversity and Differentiated Instruction and Learning," invited paper at the 8<sup>th</sup> International Conference on Teaching Statistics, Ljubljana, Slovenia, July, 2010.
- **Stephenson, W. R.**, "Publishing in Statistical Education Journals," invited panel discussion session at the 8<sup>th</sup> International Conference on Teaching Statistics, Ljubljana, Slovenia, July, 2010.
- **Stephenson, W. R.**, "Training TA's to Teach in Graduate School and Beyond," invited panel discussion session at the 2008 Joint Statistical Meetings, Denver, CO, August, 2008.
- **Stephenson, W. R.**, "To Block or Not to Block?" invited workshop for Beyond AP Statistics at the 2008 Joint Statistical Meetings, Denver, CO, August, 2008.
- **Stephenson, W. R.**, "To Block or Not to Block?" invited workshop for Beyond AP Statistics at the 2007 Joint Statistical Meetings, Salt Lake City, UT, August, 2007.
- Froelich, A. G. and **Stephenson, W. R.**, "How Much Does a Single M&M Weigh? Developing Activities for Engaging Students in Statistical Discovery," invited breakout session at the 2007 US Conference on Teaching Statistics, Columbus, OH, May, 2007.
- Froelich, A. G., Stephenson, W. R., and Duckworth, W. M., "Further Assessment of Materials for Engaging Students in Statistical Discovery," contributed paper at the 7<sup>th</sup> International Conference on Teaching Statistics (ICOTS-7), Salvador, Brazil, July, 2006 and the Joint Statistical Meetings, Seattle, WA, August, 2006.
- Davies, N., Dietz, E. J., Jolliffe, F., and Stephenson, W. R., "Statistics Education Journals: Cooperating not Competing," invited panel discussion at the 7<sup>th</sup> International Conference on Teaching Statistics (ICOTS-7), Salvador, Brazil, July, 2006.
- **Stephenson, W. R.**, Short, T., and Dietz, E. J. "The Journal of Statistics Education: an International Journal on the Teaching and Learning of Statistics," Invited panelist at the 2005 Joint Statistical Meetings, Minneapolis, MN, August 2005.
- Froelich, A. G., **Stephenson, W. R.**, and Duckworth, W. M. "Assessment of Materials for Engaging Students in Statistical Discovery," Contributed paper at the 2005 Joint Statistical Meetings, Minneapolis, MN, August 2005.
- Froelich, A. G., **Stephenson, W. R.**, and Duckworth, W. M. "Engaging Students in Statistical Discovery," Contributed poster at the 2005 Joint Mathematics Meetings, Atlanta, GA, January 2005.
- **Stephenson, W. R.** "TEAMS: A statistician's perspective," Invited panelist at the 2004 Joint Statistical Meetings, Toronto, August 2004.
- **Stephenson, W. R.** "Logistic Regression," Invited presentation as part of Beyond AP Statistics II, at the National Council of Teachers of Mathematics annual meetings, Philadelphia, April 2004.
- Stephenson, W. R. and Duckworth, W. M. "Resampling Methods: Not just for statisticians anymore," Invited paper presented at JSM 2003, San Francisco, CA, August, 2003.
- **Stephenson, W. R.** "Experiencing Statistics at a Distance," Invited paper at the 6<sup>th</sup> International Conference on the Teaching of Statistics, Cape Town, South Africa, July, 2002.

- Koehler, K. and **Stephenson, W. R.** "Statistical Education Outreach = Unlimited Learning," Invited paper at the 53<sup>rd</sup> Session of the International Statistical Institute, Seoul, S. Korea, August, 2001.
- Stephenson, W. R. "Filmed in Front of a Live Audience," Master Teacher Presentation, Iowa State University, April, 2001.
- Cook, D., Duckworth, W., Kaiser, M., Meeker, W., **Stephenson, W. R.** "Beyond Traditional Statistical Methods," contributed paper presented at the 160<sup>th</sup> Annual meeting of the American Statistical Association, Indianapolis, IN, August, 2000.
- Duckworth, W., and **Stephenson, W. R.** "Statistical Computing: An Undergraduate Course for the New Millennium," contributed poster presented at the 160<sup>th</sup> Annual meeting of the American Statistical Association, Indianapolis, IN, August, 2000.
- Djang, F., and **Stephenson, W. R.** "Planning a Study: How students answer free response questions on AP statistics exams," Special contributed paper presented at the 160<sup>th</sup> Annual meeting of the American Statistical Association, Indianapolis, IN, August, 2000.

### • EXTERNAL and INTERNAL FUNDING:

- Grant proposal (co-PI with A. G. Froelich, U. Genschel, and J. Miller (Ohio State)): "Collaborative Research: Engaging All Students in Statistical Discovery." (\$325,000) submitted to the National Science Foundation Course, Curriculum and Laboratory Improvement: Phase 2 - Expansion. January 2007. Not funded.
- Grant proposal (co-PI with W. M. Duckworth and A. Froelich): "Conceptual Statistics: Engaging Students in Statistical Discovery." (\$75,000) funded by the National Science Foundation Course, Curriculum and Laboratory Improvement Program. 2003-05
- Miller Faculty Fellowship (with W. Duckworth and A. Froelich): "Engaging Students in Statistical Discovery." (\$20,300) funded.
- Grant proposal (co-PI with W. Q. Meeker, D. Cook and M. S. Kaiser): "Beyond Traditional Statistical Methods." (\$57,000) funded by the National Science Foundation Instrumentation and Laboratory Improvement Program. 1997-99.
- Received funding (\$40,000) from General Motors to develop a course: Applied Statistics for Industry delivered to General Motors Technical Education Sites. 1994.

- SERVICE:
  - Department:
    - Advisory Committee to the Chair 2006-2008.
    - Committee to Review Department Head: 1993-1994.
    - Curriculum Committee: 1986-1989, 1997-2005, 2007-2017, Chair: 1987-1989, 1997-1999, 2000-2005, 2007-2017.
    - Distance Education Committee: 2008-2010.
    - Faculty Evaluation Committee: 1996-1997 (Chair)
    - Graduate Committee: 1994-2017.
    - Library Committee: 1980-1986, 1990-1993 Chair: 1982-1985, 1992-1993.
    - Promotion and Tenure Committee: 2001-2003, 2004-2007, 2006-2007 (Chair), 2011-2013.
    - Search Committee: 1994-1995, 1996-1997 (Chair), 1999-2000 (Chair), 2001-2002
    - (DEO Search), 2007-08, 2008-2009 (Chair), 2011-2012, 2013-2014 (Chair).
    - Snedecor Hall Renovation Committee: 2007-2010.
    - Student Faculty Committee on Instruction: 1979-1989, 1990-2000, 2006-2017. co-Chair: 1986-1988, 1990-2000.
    - Undergraduate Committee: 1979-1989, 1990-2017. Chair: 1985-1986, 2000-2007, 2009-2015.
  - College:
    - Awards Committee 2010-2016, Chair 2011-2016.
    - Phi Beta Kappa: Committee for Members in Course 2004-2007.
    - Liberal Arts and Sciences Committee on Learning Assessment: 2002-2005.
    - Phi Kappa Phi: Scholarship Committee Chair 1997-2003.
    - Ad Hoc Committee on Strategic Planning: 2000-2001.
    - Barry Goldwater Scholarship Selection Committee: 1988-1989, 1990-2001.
    - Student Learning Implementation Committee: 1996-1997.
    - Academic Standards and Admissions Committee: 1992-1995, Chair: 1993-1995.
    - Ethos Publication Board: 1991-1993.
    - Committee on Instruction: 1985-89, Chair: 1987-1989.
    - Ad Hoc Committee on Quality of Undergraduate Education: 1987-1988.
    - Phi Beta Kappa: Treasurer 1984-86, President 1986-87, Past President 1987-1988.
    - Ad Hoc Committee Outstanding Advisor Award: 1987-1988.
    - Representative Assembly: 1981-1984
  - University:
    - o Morrill Professor Review Committee 2015-2017.
    - Institutional Review Board: 2003-2010.
    - Faculty Senate Ad Hoc Committee on Night Course/Exam conflicts: 1997-1998.
    - Provost's Committee on Distance Education: 1996-1997.
    - Provost's Committee on Creative Approaches to Teaching and Learning: 1996-1997.
    - University Teaching Awards Committee: 1995-1996.
    - Statistical Software Selection Committee: 1993-1994.
    - Faculty Senate Academic Standards and Admissions Committee: 1993-1995.

### • PROFESSIONAL ACTIVITIES AND ACCOMPLISHMENTS:

- American Statistical Association
  - *Journal of Statistics Education* Editor Search Committee, 2008-2009, 2011-2012, 2014-2015.
  - Ad Hoc Committee Appointments Advisory Committee, 2008-2010.
  - Nominated to run for Chair of the Council of Sections, 2006.
  - Publications Committee 2004-2006.
  - Section on Statistical Education Fellows Committee 2002-2005 (Chair 2004).
  - Advisory Committee on Teacher Enhancement: 2001-2006 (Chair, 2001-2003).
  - Council of Chapters Nominating Committee: 1999-2001.
  - Committee on Nominations: 1996-1998.
  - Council of Sections Nominating Committee: 1994-1996.
  - Section on Statistical Education Section Representative: 1993-1995
  - Section on Quality and Productivity Publications Officer: 1993.
  - Advisory Committee on Continuing Education, 1992-1994 (Chair, 1993).
  - Iowa Chapter: Vice President 1991-1992, President 1992-1993.
  - Section on Statistical Education: Chair-elect, Chair, Past Chair, 1990-1993.
  - Committee to Review STATS: The Magazine for Students of Statistics 1991-1992.
  - Section on Statistical Education Committee to Prepare Guidelines for Undergraduate Programs in Statistics.
- American Society for Quality
  - Statistics Division, Region 13 Counselor: 1987-1989.
- Mu Sigma Rho (the National Statistical Honor Society)
  - Award Committee: 2003-1005, Chair 2004.
  - Director at Large: 1994-1997, 1997-2007, 2010-2019.
  - National President: 1988-1994.
- Referee for:
  - The American Statistician
  - The Association of Official Analytical Chemists
  - BioScience
  - Communications in Statistics: Theory and Methods
  - International Statistical Review
  - Journal of the American Statistical Association
  - Journal of Educational Statistics
  - Journal of Nonparametric Statistics
  - Journal of Quality Technology
  - Journal of Statistics Education
  - Mathematics Magazine
  - Psychological Bulletin
  - Technology Innovations in Statistics Education
  - Technometrics

- Miscellaneous:
  - Member of the Advanced Placement Program® (AP®) Statistics Development Committee, 2017-2018
  - Higher education co-chair for the Advanced Placement Program ® (AP ®) Statistics Development Committee, 2013-2017.
  - External Review Team to evaluate the Department of Mathematics and Statistics, St. Cloud State University, St. Cloud, MN, 2016.
  - External Review Team to evaluate the Department of Mathematical Sciences, Montclair State University, Upper Montclair, NJ, 2012.
  - Science Foundation of Ireland Mathematics Review Panel, November 2007.
  - Chair, External Review Team to evaluate the Undergraduate Statistics Program at California Polytechnic University at San Luis Obispo, CA, 2004.
  - Author for Dana Center Advanced Placement Statistics Web Site: 2000-2003.
  - Advisory Board Member, Consortium for the Advancement of Undergraduate Statistics Education (CAUSE): 2002-2003
  - Advisory Board Member for Teacher Education: Assessment, Methods and Strategies (TEAMS): 2001-2003
  - Presenter at Beyond AP Statistics: Baltimore, MD 1999, Indianapolis, IN 2000.
  - Faculty Consultant to the College Board: AP Statistics, grader: 1998, 1999, 2007, 2012, 2013, 2014, 2015, 2016 and 2018; table leader: 2000, 2002, 2003, 2006, 2008, 2009, 2011 and 2017.
  - NSF Review Panel: Instrumentation and Laboratory Improvement Program: 1996.
  - NSF Industry/Academe Collaboration Project Participant: 1995-96.
  - Chair, External Review Team to evaluate the Undergraduate Program in Statistics at California Polytechnic University at San Luis Obispo, 1994.
  - Member of National Advisory Committees for several NSF Projects in Statistics Education: 1991, 1993, 1994, 1997.

#### • STATISTICAL CONSULTING WITH INDUSTRY:

- Bandag, Muscatine, IA.
- BHP, New South Wales, Australia.
- College Board, New York, NY.
- Dee Zee Inc., Ankeny, IA.
- Educational Testing Service, Princeton, NJ.
- Elanco Animal Health, Paci\_c, MO.
- Frigidaire (WCI), Webster City, IA.
- Glacier-Vanderwell, Atlantic, IA.
- General Motors, Warren, MI.
- Genex/Land O Lakes, Fort Dodge, IA.
- Hunter Port Authority, New South Wales, Australia.
- JBS, Inc., Greeley, CO.
- Maytag, Newton, IA.
- National Pork Board, Clive, IA.
- Niman Ranch, Alameda, CA.
- Pasminco Mining, New South Wales, Australia.
- Pella Corp., Pella, IA.
- Pfizer Pharmaceutical, Kalamazoo, MI.
- Roche Vitamins Inc., Parker, CO.
- Sauer-Sundstrand, Ames, IA.
- Swift Premium, Greeley, CO.
- Tamogo Aluminium, New South Wales, Australia.
- Tyson, Dakota Dunes, SD.
- Wellmark Blue Cross and Blue Shield, Des Moines, IA.