

**MELINDA MILLER HOLT**

Department of Mathematics and Statistics  
Sam Houston State University  
Huntsville, TX 77341

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**EDUCATION**

***Baylor University, Waco, Texas***

**Ph.D.**, Statistics, 1995

Dissertation: *Analysis of Quantal Responses in the Joint Action of Two Agents: Bayesian and Distribution-free Methods* (Advisor: John W. Seaman), 1995

**M.A.**, Mathematics, 1991

Master's Project: *Centrosymmetric Matrices* (Advisor: Patrick L. Odell), 1991

**B.A.**, Mathematics, 1990 (Cum Laude)

**TEACHING EXPERIENCE**

**Sam Houston State University,**

Department Chair, 2017 – present

Professor, 2013 - present

Associate Professor, 2006 – 2013, tenured in 2009

Assistant Department Chair, 2012 - present

Statistics Coordinator and Graduate Advisor, 2009 – 2012

**Louisiana State University,** Adjunct Associate Professor, 2005 – 2009

**Southeastern Louisiana University,**

Graduate Coordinator, Integrated Science and Technology, 2005 – 2006

Associate Professor, 2003 – 2006, tenured in 2006

**Texas Woman's University,**

Associate Professor, 2000 – 2003, tenured in 2002

Assistant Professor, 1998 – 2000

**Sam Houston State University,** Assistant Professor, 1997 – 1998

**Northern Kentucky University,** Assistant Professor, 1995 – 1997

**SCHOLARLY ACTIVITY**

***Peer-Reviewed Publications***

Mondin, L., Weber, C., Clark, S., Winborn, J., Holt, M. and Manage, A. (2013)  
“Statistical Analysis of Diagnostic Accuracy with Applications to Cricket,” *Involve, a Journal of Mathematics* **5**, pp. 349-359.

Bier, S., Hermstad, E., Trollman, C., and Holt, M. (2013) "Army Flight Medic Performance of Paramedic Level Procedures: Indicated vs. Performed," *Journal of Emergency Medicine* **44**, pp. 962-969.

Bier S, Hermstad E, Trollman C, and Holt M. (2012), "Education and experience of Army flight medics in Iraq and Afghanistan," *Aviation, Space, and Environmental Medicine* **83**, pp. 991-994.

Bier, S., Hermstad, E., Trollman, C., and Holt, M. (2011), "Army Flight Medic Performance of Advanced Emergency Medical Technician Procedures," *Annals of Emergency Medicine* **58**, p. S299.

Bier, S., Hermstad, E., Trollman, C., and Holt, M. (2011), "Army Flight Medics in Iraq and Afghanistan: A Survey," *Annals of Emergency Medicine* **58**, p. S300.

Clark, S., Mondin, L., Weber, C., and Winborn, J. (2011) "Interval Estimates for Predictive Values in Disease Testing," *Society for Industrial and Applied Mathematics Undergraduate Research Online*

Stamey, J. and Holt, M. A. (2010) "Bayesian Interval Estimation for Predictive Values for Case-Control Studies," *Communications in Statistics – Simulation and Computation* **39**, pp. 101-110.

Loft, B. and Holt, M. (2010) "Increasing STEM Graduation Rates at SHSU," *International Journal of Applied Geospatial Research*, **1**, pp. 76-77.

Holt, M. A. and Scariano, S. M. (2009) "Mean, Median and Mode from a Decision Perspective," *Journal of Statistics Education* **17**.  
[www.amstat.org/publications/jse/v17n3/holt.html](http://www.amstat.org/publications/jse/v17n3/holt.html)

Holt, M. A., Stamey, J., Seaman, J. W., and Young, D. M. (2009) "Bayesian Test and Sample Size Determination Methods for Binary Outcomes in Fixed-Dose Combination Drug Studies," *Journal of Biopharmaceutical Statistics* **19**, pp. 120-132.

Stamey, J., Young, D. M., Seaman, J. W., and Holt, M. (2005) "Bayesian Closed-Form Predictive Probability Functions for Counts using Data Subject to Misclassification," *Far East Journal of Theoretical Statistics*, pp. 43-59.

Holt, M. A., Stamey, J., Seaman, J. W., and Young, D. M. (2004) "A Note on Distribution-free Tests for Interaction in Quantal Response Data," *Journal of Statistical Computation and Simulation* **74**, pp. 683-690.

Stiller, J., Holt, M. M. (2004) "Factors Associated with Female Patients' Referral for Cardiac Rehabilitation," *Rehabilitation Nursing* **29**, pp. 18-23.

Demuynck, M-A, Zimmerman, W., Edwards, D.E., Holt, M.M. (2004) "Expanding Horizons for Women and Minorities: Stimulating Interest in Engineering through Web-based Modules," *Proceedings of the 2004 American Society for Engineering Education Gulf-Southwest Annual Conference*.

Edwards, D.E., Demuynck, M-A, Holt, M.M., Cox, R. (2004) "Texas Engineering Partnerships: Expanding Opportunities for Women," *Proceedings of the 2004 American Society for Engineering Education Gulf-Southwest Annual Conference*.

Hamner, M.S., Holt, M., McGee, E., Dickey-Davis, D. (2004) "Exploring the Difference Between Science and Non-Science Majors in an Environment that Controls for the Presence of Males," *Proceedings of the 2004 American Society for Engineering Education Gulf-Southwest Annual Conference*.

Miller, M. A., Seaman, J. W. (1998) "A Bayesian Approach to Assessing the Superiority of a Dose Combination," *Biometrical Journal* **40**, 43-55.

### ***Other Publications***

Holt, M. M., Hallum, C. R. (2016) "Effects of Measurement Errors in Estimation of Constrained Parameters," *2016 Proceedings of the American Statistical Association, Statistical Programmers and Analyst Section*. Alexandria, VA: American Statistical Association.

Li, X., and Holt, M. (2008) "Applying Bayesian Belief Networks to the Examination of Student Retention and Graduation," *2008 Proceedings of the American Statistical Association, Biopharmaceutical Section* [CD-ROM], Alexandria, VA: American Statistical Association.

Holt, M. and Mo, M. (2008) "Bayesian Tests for Synergy in Three-Agent Combination In Vitro Chemotherapy Treatments," *2008 Proceedings of the American Statistical Association, Biopharmaceutical Section* [CD-ROM], Alexandria, VA: American Statistical Association.

Tang, Y., and Holt, M. (2007) "A Performance Study of the Likelihood Ratio Test and the Bootstrap test for Drug Interaction" *2007 Proceedings of the American Statistical Association, Biopharmaceutical Section* [CD-ROM], Alexandria, VA: American Statistical Association.

Holt, M., Butar Butar F., and Linder, J. (2007) "Small-Sample Tests for Efficacy in Fixed-Dose Drug Combination Studies" *2007 Proceedings of the American Statistical Association, Biopharmaceutical Section* [CD-ROM], Alexandria, VA: American Statistical Association.

Butar Butar, F., Bandulasiri, A., Holt, M., and Hallum, C. (2007) "Matrix Plots in Support of Visualization of Matrix Characteristics" *2007 Proceedings of the American Statistical Association* [CD-ROM], Alexandria, VA: American Statistical Association.

Holt, M. A., Stamey, J., Seaman, J. W., and Young, D. M. (2005) "A Bayesian Test for Binary Outcomes in Fixed-Dose Combination Drug Studies," *2005 Proceedings of the Biopharmaceutical Section of the American Statistical Association*.

Holt, M. M., Edwards, D., Cox, R. (2002) "Texas Engineering Partnerships: A Model Program," *2002 WEPAN National Conference Proceedings*.

Holt, M. M. (February 10, 2002) "Wanted: Female Engineers," *Dallas Morning News*, p. 7J.

Holt, M. M., Demuynck, M. A. (2000) "Teaching Statistical Reasoning: An Integrated Statistics and Computer Applications Course," *2000 Proceedings of the Statistical Education Section of the American Statistical Association*, pp. 177-180.

Miller, M. A., Seaman, J. W. (1998) "A Bayesian Test for Synergy in Fixed-Dose Clinical Trials," *1998 Proceedings of the Biopharmaceutical Section of the American Statistical Association*, pp. 214-216.

Hebert, J. L., Miller, M. A. (1998) "Properties of the Reliability Function for Systems of Exponential Mixtures," *1998 Proceedings of the Section on Physical and Engineering Sciences of the American Statistical Association*, pp. 116-119.

Hallum, C., Miller, M. (1998) "A GUI for Enhanced Insight into Data in a University Setting: SAS/EIS<sup>®</sup> and SAS/AF<sup>®</sup> Frame to the Rescue," *Proceedings of the Twenty-third Annual SAS Users Group International Conference*, pp. 968-973.

Miller, M. A., Seaman, J. W., and Young, D. M. (1996) "A Distribution-free Test for Interaction in Drug Combinations," *1996 Proceedings of the Biopharmaceutical Section of the American Statistical Association*, pp. 192-196.

Miller, M. A., Odell, P. L. (1991) "Centrosymmetric Matrices," Technical Report 9101, Baylor University.

### ***Externally Funded Grants (in excess of \$2.5 million)***

"Peers Exploring Biology, Mathematics and Statistics (PEERS II)," by Melinda Holt, Brian Loft and Sibyl Bucheli, funded by National Science Foundation in the amount of \$599,249.

"Peers Enhancing their Education through Research and Scholarships," by Brian Loft, Melinda Holt and Anne Gaillard, funded by National Science Foundation in the amount of \$599,980.

"Recruiting Superior Integrated Science and Technology Students," by Melinda Holt and Randolph Belter, funded by the Louisiana Board of Regents in the amount of \$36,000. Matching funds in the amount of \$18,000 from Southeastern Louisiana University.

"Middle School Mathematics & Science Project," by Jefferson Parish Independent School District, funded by the Louisiana State Department of Education in the amount of \$450,000.

"Tomorrow's Workforce Today," by Melinda Miller Holt and Don Edward, funded by the National Science Foundation in the amount of \$400,000. Matching funds pledged by Texas Instruments, Inc. in the amount of \$150,000.

“CSEMS Scholars Program,” by Melinda Miller Holt and Don Edwards, funded by the National Science Foundation in the amount of \$270,000, August 2000 – July 2002. Matching funds pledged by Texas Instruments, Inc. in the amount of \$200,000.

“Integrated Statistics and Computer Science Courses,” by Melinda Miller and Marie-Anne Demuynck, funded in the amount of \$87,577 by the National Science Foundation, August 1999 – July 2002.

### ***Internal Grants and Fellowships***

“Enhancing Elementary Statistics through Service-Learning,” by Melinda Holt, funded by the Southeastern Louisiana University Center for Faculty Excellence in the amount of \$700. Matching funds in the amount of \$300 from the Department of Mathematics.

“Service Learning in Elementary Statistics,” by Melinda Holt, funded by the Southeastern Louisiana University Center for Faculty Excellence in the amount of \$1400. Matching funds in the amount of \$300 from the Department of Mathematics.

“Service Learning in Graduate Statistics,” by Melinda Holt, funded by the Southeastern Louisiana University Center for Faculty Excellence in the form of \$200 stipend and travel funding.

“ISAT Course Development,” by Ken Li and Melinda Holt, funded by the Southeastern Louisiana University Center for Faculty Excellence in the amount of \$400.

TWU Chancellor’s Research Fellowship, funded in the amount of \$5000, March 2002.

TWU Chancellor’s Research Fellowship, funded in the amount of \$5000, October 2001.

“A Bayesian Statistical Approach to Estimating the Intensity of a Drug Interaction,” by Melinda Miller, funded in the form of one course reassigned-time by Texas Woman’s University, Summer 1999.

“A Bayesian Approach to Testing for Interaction in Drug Combination Studies,” by Melinda Miller, funded by the Sam Houston State University Research Council in the amount of \$5000, Summer 1998.

“A Bayesian Statistical Analysis of Combination Drug Effectiveness,” by Melinda Miller, funded by the Northern Kentucky University Faculty Senate in the form on one course reassigned-time, Summer 1997.

### ***Published Book Reviews***

*Learning SAS by Example: A Programmer’s Guide* by Ron Cody, *Technometrics* **50**, pp. 91-92.

*Statistics and Data Analysis from Elementary to Intermediate* by Ajit C. Tamhane and Dorothy D. Dunlop, *Technometrics* **43**, pp. 237-238.

*Statistical Methods for Engineers* by G. Geoffrey Vining, *Technometrics* **41**, pp. 264-265.

### ***Invited Presentations***

Holt, M. M. (2009) "Bayesian Methods for Reducing Sample Size in Combination Drug Studies," Texas Southern University Research Week, Houston, Texas.

Holt, M. M. (2009) "Bayesian Methods for Reducing Sample Size in Combination Drug Studies," Conference on Probability, Statistics and Related Areas, Beaumont, Texas.

Holt, M. M. (2006) "Bayesian Identification of Superiority in Fixed-dose Combination Drug Studies," Summer Research Conference on Statistics, Kerrville, Texas.

Holt, M. M. (2004) "A Bayesian Test for Binary Outcomes in Fixed-Dose Combination Drug Studies," Louisiana State University Biostatistics Statistics Seminar.

Holt, M. M. (2004) "A Bayesian Test for Binary Outcomes in Fixed-Dose Combination Drug Studies," Louisiana State University Experimental Statistics Seminar.

Holt, M. M. (2003) "Recruiting Women and Minorities into the Mathematical Sciences," The Texas Academy of Academic Administrators in Mathematical Science, Waco, Texas.

Demuynck, M. A., Holt, M. M. (2001) "Web-based Learning Modules for Introductory Statistics," The American Mathematical Association of Two-Year Colleges (AMATYC) Annual Conference, Toronto, Ontario, Canada. (presented by Demuynck)

Demuynck, M. A., Holt, M. M. (2001) "Web-based Learning Modules for Introductory Statistics," Syllabus2001, Santa Clara, California. (presented by Demuynck)

Hamner, M., Holt, M. M. (2001) "Statistical Analysis with SPSS or SAS: Strengths and Weaknesses," Fourth Annual Texas Woman's University Student Research and Creative Arts Symposium, Denton, Texas.

Demuynck, M. A., Holt, M. M. (2000) "An Interactive Integrated Cross-Disciplinary Learning Environment for Introductory Statistics and Computer Science Courses," IEEE MetroCon 2000, Arlington, Texas. (presented by Demuynck)

Holt, Melinda (2000) "EXCEL-ling with SPSS," Third Annual Texas Woman's University Student Research and Creative Arts Symposium, Denton, Texas.

Miller, M. A., Seaman, J. W. (1999) "A Bayesian Approach to Fixed-Dose Clinical Trials," Conference of Texas Statisticians, Dallas, Texas.

Miller, M. A., Seaman, J. W. (1999) "A Bayesian Approach to Fixed-Dose Clinical Trials," Stochastic Lunch Seminar, University of North Texas, Denton.

Miller, M. A. (1999) "Why Isn't Everyone a Bayesian," Stochastic Lunch Seminar, University of North Texas, Denton.

Miller, M. A. (1999) "SPSS Update," Second Annual Student Research and Creative Arts Symposium, Texas Woman's University, Denton.

Miller, M. A. (1997) "To Be or Not to Be a Bayesian: Approaches to Drug Combination Studies," Sigma Xi Research Society, Northern Kentucky University.

### ***Contributed Presentations***

Holt, M. and Hallum, C. (2016) "Effects of Measurement Error and Heteroscedasticity in Estimation of Constrained Parameters," Joint Statistical Meetings, Chicago, Illinois.

Holt, M. M. and Scariano, S. M. (2011) "Teaching Statistical Reasoning through Contingency Tables," Joint Mathematics Meetings, New Orleans, Louisiana.

Bier, S., Hermstad, E., Trollman, C. and Holt, M. (2011) "Army Flight Medic Performance of Advanced EMT Procedures: Indicated vs Performed," presented by Bier to the American Services American College of Emergency Physicians Symposium, San Francisco, California. Abstract appeared in *Annals of Emergency Medicine*. (presented by Bier)

Bier, S., Hermstad, E., Trollman, C. and Holt, M. (2011) "Flight Medics In Iraq and Afghanistan: A Survey," presented by Bier to the American Services American College of Emergency Physicians Symposium, San Francisco, California. Abstract appeared in *Annals of Emergency Medicine*. (presented by Bier)

Holt, M. M. (2011) "Uses of the Delta Method," Sam Houston State University, Huntsville, Texas.

Holt, M. M. (2009) "Bayesian Methods for Reducing Sample Size in Combination Drug Studies," Sam Houston State University, Huntsville, Texas.

Holt, M. and Mo, M. (2008) "Bayesian Tests for Synergy in Three-Agent Combination In Vitro Chemotherapy Treatments," Joint Statistical Meetings, Denver, Colorado.

Holt, M. A. (2008) "Why Isn't Everyone a Bayesian?" Sam Houston State University, Huntsville, Texas.

Holt, M., Butar Butar F., and Linder, J. (2007) "Small-Sample Tests for Efficacy in Fixed-Dose Drug Combination Studies" Joint Statistical Meetings, Salt Lake City, Utah.

Butar Butar, F., Bandulasiri, A., Holt, M., and Hallum, C. (2007) "Matrix Plots in Support of Visualization of Matrix Characteristics" Joint Statistical Meetings, Salt Lake City, Utah.

Holt, M. A., Stamey, J., Seaman, J. W., and Young, D. M. (2005) "A Bayesian Test for Binary Outcomes in Fixed-Dose Combination Drug Studies," Joint Statistical Meetings, Minneapolis, Minnesota.

Holt, M. A., Kuhn, R. (2005) "The Effects of Service-Learning on Elementary Statistics Students," Southeastern Louisiana University Faculty Conference on Teaching, Research, and Creativity, Hammond, Louisiana.

Holt, M. A., Stamey, J., Seaman, J. W., and Young, D. M. (2005) "A Note on Distribution-free Tests for Interaction in Quantal Response Data," International Biometric Society-Eastern North American Region, Austin, Texas.

Holt, M. M. (2004) "Service-Learning in Statistics," Southeastern Louisiana University Center for Faculty Excellence Brown-Bag Luncheon, October 2004.

Holt, M. M. (2004) "Service-Learning in Graduate Statistics," Panel Presentation, Southeastern Louisiana University Center for Faculty Excellence 2004 Faculty Conference on Teaching, Research & Creativity, Hammond, Louisiana.

Holt, M. M. (2004) "Bayesian Approaches to Assessing Joint Action in Fixed-Dose Combination Studies," Louisiana Section of the American Statistical Association, New Orleans, Louisiana.

Holt, M. M. (2004) "Bayesian Statistics: What Is It and Why Should I Care?" Louisiana-Mississippi Section of the Mathematical Association of America, Hammond, Louisiana.

Demuynck, M-A, Zimmerman, W., Edwards, D.E., Holt, M.M. (2004) "Expanding Horizons for Women and Minorities: Stimulating Interest in Engineering through Web-based Modules," American Society for Engineering Education, Lubbock, Texas. (presented by Demuynck)

Hamner, M.S., Holt, M., McGee, E., Dickey-Davis, D. (2004) "Exploring the Difference Between Science and Non-Science Majors in an Environment that Controls for the Presence of Males," American Society for Engineering Education, Lubbock, Texas. (presented by Hamner)

Edwards, D.E., Demuynck, M-A, Holt, M.M., Cox, R. (2004) "Texas Engineering Partnerships: Expanding Opportunities for Women," American Society for Engineering Education, Lubbock, Texas. (presented by Edwards)

Cox, R., Holt, M., Edwards, D. Wetterskog, R. (2003) "Texas Engineering Partnerships – An Opportunity for Women," Texas Tech University All-University Conference on the Advancement of Women in Higher Education, Lubbock, Texas.



Demuynck, M. A., Holt, M. M. (2002) "Integrated Interactive On-Line Learning Modules for Introductory Statistics Courses," CAMT, Dallas, Texas.

Holt, M. M., Edwards, D., Cox, R. (2002) "Texas Engineering Partnerships: A Model Program," WEPAN, San Juan, Puerto Rico.

Holt, M. M., Demuynck, M. A. (2002) "Teaching Statistical Reasoning: An Integrated Statistics and Computer Applications Course," Joint Math Meetings, San Diego, California.

Holt, M. M., Demuynck, M. A. (2001) "Teaching Statistical Reasoning: An Integrated Statistics and Computer Applications Course," Joint Math Meetings, New Orleans, Louisiana.

Holt, M. M., Demuynck, M. A. (2000) "Teaching Statistical Reasoning: An Integrated Statistics and Computer Applications Course," Joint Statistical Meetings, Indianapolis, Indiana.

Miller-Holt, M. A., Seaman, J. W. (2000) "A Bayesian Approach to Fixed-Dose Clinical Trials," International Biometric Society, Eastern North American Region Spring Meeting, Chicago, Illinois.

Miller, M. A., Seaman, J. W. (1998) "A Bayesian Test for Synergy in Fixed-Dose Clinical Trials," Joint Statistical Meetings, Dallas, Texas.

Hebert, J. L., Miller, M. A. (1998) "Properties of the Reliability Function for Systems of Exponential Mixtures," Joint Statistical Meetings, Dallas, Texas. (presented by Hebert)

Miller, M. A., Seaman, J. W. (1998) "A Bayesian Test for Interaction in Combination Drugs," International Biometric Society, Eastern North American Region Spring Meeting, Pittsburgh, Pennsylvania.

Hallum, C., Miller, M. A. (1998) "A GUI for Enhanced Insight into Data in a University Setting: SAS/EIS® and SAS/AF® Frame to the Rescue," Twenty-third Annual SAS Users Group International Conference, Nashville, Tennessee. (presented by Hallum)

Miller, M. A. (1998) "Using M&M Candies to Teach Statistics," Conference on the Teaching of Secondary Mathematics, Sam Houston State University.

Miller, M. A., Seaman, J. W. (1997) "A Bayesian Approach to Fixed-Dose Trials Involving Quantal Responses," International Biometric Society, Eastern North American Region Spring Meeting, Memphis, Tennessee.

Miller, M. A., Seaman, J. W., and Young, D. M. (1996) "A Distribution-free Test for Interaction in Drug Combinations," Joint Statistical Meetings, Chicago, Illinois.

Miller, M. A., Seaman, J. W. (1996) "A Bayesian Approach to Identification of an Effective Dose Combination," International Biometric Society, Eastern North American Region Spring Meeting, Richmond, Virginia. (Co-presented)

Miller, M. A., Seaman, J. W. (1995) "Bayesian Techniques for Identifying an Effective Dose Combination," Texas Academy of Sciences, Baylor University, Waco, Texas.

### ***Student Presentations***

Heranga Rathnasekara (2017) *Hot Spots and Cluster Analysis of a Mosquito-Borne Disease*, (COTS 2017 1<sup>st</sup> Place, Mathematical Statistics/Biostatistics in MS category)

Dholamulla Preethika (2017) *Sensitivity Analysis of Error in Variables Multiple Regression*

Kristina Yount (2017) *Predicting Parasite Counts of *Apis Mellifera* Using Poisson Regression*, (COTS 2017 2nd Place, Mathematical Statistics/Biostatistics in MS category)

Hoang, D. (2016) "Performance Study of Bootstrap Methods for OLS-Bisector Regression," Conference of Texas Statisticians, San Antonio, Texas.\* Best Biostatistics Poster.

Zalsha, S. (2016) "Confidence Interval Guidelines for Ranged Major Axis Regression," Conference of Texas Statisticians, San Antonio, Texas.

Yount, K. (2016) "Using Weighted Least Products Regression with Heteroscedasticity," Conference of Texas Statisticians, San Antonio, Texas.

Liu, Z. (2015) "Assessing the Performance of the OLS-Bisector Regression Method," Conference of Texas Statisticians, Austin, Texas.

Rector, A. (2015) "Determining Guidelines for the Use of Ranged Major Axis Regression," Conference of Texas Statisticians, Austin, Texas.

Tate, T. and Yount, K. (2015) "Putting It All Together: Model II Regression," Conference of Texas Statisticians, Austin, Texas.

Nieuwoudt, C. (2014) "Assessing the Sensitivity of Interval Estimates in Errors-in-Variables Regression," Conference of Texas Statisticians, Dallas, Texas.

Huang, S. (2013) "Ordinary Least Squares vs. Reduced Major Axis Regression: A Performance Analysis," Conference of Texas Statisticians, Houston, Texas.

Jayasena, N. (2012) "Comparing the Performance of Ordinary Least Squares and Model II Regression," Conference of Texas Statisticians, Beaumont, Texas.

Mondin, L. and Weber, C. (2012) "A Performance Analysis of Wald-Type and Bayesian Interval Estimates of Diagnostic Accuracy," Conference of Texas Statisticians, Beaumont, Texas.

Clark, S., Mondin, L., Weber, C., and Winborn, J. (2011) "Statistical Analysis of Diagnostic Accuracy with Applications to Cricket," Conference of Texas Statisticians, College Station, Texas.

Clark, S., Mondin, L., Weber, C., and Winborn, J. (2011) "Statistical Analysis of Diagnostic Accuracy with Applications to Cricket," Joint Mathematics Meetings, New Orleans, Louisiana.

Clark, S., Mondin, L., Weber, C., and Winborn, J. (2010) "Statistical Analysis of Diagnostic Accuracy with Applications to Cricket," LURE Conference, Huntsville, Texas.

Clark, S., Mondin, L., Weber, C., and Winborn, J. (2010) "Interval Estimates for Predictive Values in Disease Testing," Conference of Texas Statisticians, Waco, Texas.

Stephens, C., Lutterschmidt, W. and Holt, M. (2009) "The Misuse of Model I Regression in Biology," Southwestern Association of Naturalists, Oklahoma City, Oklahoma.

Adams, P. (2009) "Calculation and Analysis of Margins of Error Associated with PPV and NPV in Peritoneal Carcinomatosis Data," Conference of Texas Statisticians, Huntsville, Texas.

Adams, P. (2009) "Calculation and Analysis of Margins of Error Associated with PPV and NPV in Peritoneal Carcinomatosis Data," McNair Scholar Conference, Puerto Rico.

Clark, S., Mondin, L., Weber, C., and Winborn, J. (2009) "Interval Estimates for Predictive Values in Disease Testing," LURE Conference, Baltimore, Maryland.

Clark, S., Mondin, L., Weber, C., and Winborn, J. (2009) "Interval Estimates for Predictive Values in Disease Testing," Texas Undergraduate Research Conference, Huntsville, Texas.

Turner, J. (2009) "Alternative Tests for Interaction within Drug Combinations, Conference of Texas Statisticians, Huntsville, Texas.

Zhai, P. (2009) "Bayesian Methods in Combination Drug Studies: A Performance Analysis," Conference of Texas Statisticians, Huntsville, Texas.

Li, X. (2008) "Applying Bayesian Belief Networks to the Examination of Student Retention and Graduation," Joint Statistical Meetings, Denver, Colorado.

Brown, L. (2008) "Testing for Synergy in Combinations of Cancer Fighting Agents," Texas Mathematical Association of America, Stephenville, Texas.

Tang, Y., and Holt, M. (2007) "A Performance Study of the Likelihood Ratio Test and the Bootstrap test for Drug Interaction" Joint Statistical Meetings, Salt Lake City, Utah.

Linder, J. (2005) "A Simulation of Biostatistical Data using the Bootstrap Method," Southeastern Louisiana University Creative Arts and Research Day, Hammond, Louisiana.

Dickey, D., McGee, E. (2003) "Exploring Gender and Ethnic Differences between Science and Non-Science Majors at Texas Woman's University," Sixth Annual Texas Woman's University Student Research and Creative Arts Symposium, Denton, Texas.

Maxwell, D. (2001) "Psychometric Properties of the Survey of Attitudes Toward Statistics," Fourth Annual Texas Woman's University Student Research and Creative Arts Symposium, Denton, Texas.

Maxwell, D. (2000) "Assessment of Attitude toward Statistics," Third Annual Texas Woman's University Student Research and Creative Arts Symposium, Denton, Texas.

Martin K. H. (2000) "Assessment of Attitudes toward Computer Technology," Third Annual Texas Woman's University Student Research and Creative Arts Symposium, Denton, Texas.

Aldhafeeri, S. (2000) "Gender Equity in the Teaching of Mathematics, Computer Science and Information Technology: Where Do WE Stand?" Third Annual Texas Woman's University Student Research and Creative Arts Symposium, Denton, Texas.

### ***Professional Workshops Presented***

“Faculty Development Workshops: Develop, Adopt, Adapt (Grant Writing Workshop), ” presented to Allegheny Mountain Section of the Mathematical Association of America, March 2001, funded by the National Science Foundation and the Mathematical Association of America.

“Faculty Development Workshops: Develop, Adopt, Adapt (Grant Writing Workshop), ” presented to Louisiana/Mississippi Section of the Mathematical Association of America, March 2001, funded by the National Science Foundation and the Mathematical Association of America.

### **AWARDS AND HONORS**

Who’s Who Among American College Teachers, 2002

Mary Mason Lyon Outstanding Junior Faculty Award, Texas Woman's University, 2002

Chancellor’s Research Fellow, Texas Woman’s University, 2002

Phi Kappa Phi Honor Society Initiate, 2002

Chancellor’s Research Fellow, Texas Woman’s University, 2001

Phi Beta Kappa Honor Society Initiate, 1990

### **STUDENTS**

#### ***Research Advising***

Dave Hoang, *Performance Study of Bootstrap Methods for OLS-Bisector Regression*, 2015 – 2016.

Shalima Zalsha, *Confidence Interval Guidelines for Ranged Major Axis Regression*, 2015 – 2016.

Kristina Yount, *Using Weighted Least Products Regression with Heteroscedasticity*, 2015 - present.

Kristina Yount and Travis Tate, *Putting It All Together: Model II Regression*, 2014 – 2015.

Alison Rector, *Determining Guidelines for the Use of Ranged Major Axis Regression*, 2014 – 2015.

Christina Nieuwoudt, *Assessing the Sensitivity of Interval Estimates in Errors-in-Variables Regression*, 2013 – 2014.

Zhoace Liu, *Assessing the Performance of the OLS-Bisector Regression Method*, 2013 – 2015.

Shuyuan Huang, *Comparing Interval Estimates for the Slope based on Ordinary Least Squares and Reduced Major Axis Regression*, 2012-2013.

Nadeeshani Jayasena, *Comparing the Performance of Ordinary Least Squares and Model II Regression*, 2011-2012.

Justin Green (with Scariano), *Bayesian Quality Control*, 2011.

Karrie Everett (with Scariano), *Bayesian Quality Control*, 2010.

Scott Clark, Lauren Mondin, Courtney Weber, Jessica Winborn, *Interval Estimates for Positive Predictive Values in Disease Testing*, 2009-present.

Portia Adams, *Analysis of Bio-Mathematical Model for Ovarian Cancer*, 2008-2009.

Jacob Turner, *A Bias-Corrected Accelerated Bootstrap Test for Synergy*, 2008-2009.

Lindsay Brown, *Testing for Synergy in Combinations of Cancer Fighting Agents*, 2007-2008.

Xiaohong Li, *Applying Bayesian Belief Networks to the Examination of Student Retention and Graduation*, 2007-2008.

Peiqi Zhai, *Bayesian Methods in Combination Drug Studies: A Performance Analysis*, 2007-2008.

Yuhong Tang, *An Extended Performance Analysis of the Likelihood Ratio and Bootstrap Tests for Drug Interaction*, 2006-2007.

Jesse Linder, *Bootstrap Procedures for Detecting Superiority in a Combination Drug*, 2004-2007.

Judith Roger, *A Study of the Effects of Service-Learning upon Academic Achievement and Student Attitudes in a College Statistics Course*, 2006

Robyn Kuhn, *Service-Learning in Elementary Statistics*, 2004-2005.

Diana Dickey and Ebony McGee, *Exploring Gender and Ethnic Differences between Science and Non-Science Majors at Texas Woman's University*, research part of the National Institute of Health's Multi-Ethnic Biomedical Research Support (MBRS) Program at TWU, 2002-2004.

Aaron Gutknecht, *Teaching the Central Limit Theorem through a Web-based Learning Module for Statistics*, professional paper, 2002.

Jessica Westbay, *Synergy versus Superiority: A Critical Analysis of the Statistics in a Toxicology Study of Channel Catfish*, honors thesis, 1998.

### ***Committee Membership***

**Ph.D. Statistics:** Courtney Weber, Baylor University

**M.S. Biology:** Chas Stephens

**Ed.D. Counseling:** Cynthia Powell, Bipin Sharma, Laura Hodges

**Ed.D. Reading:** Jana Bethel, Traci Seils, Robin Traylor, Donna Willingham

**M.S. Statistics:** Huixing He, Jason Minter, Greg Newgard, Greg Stanek

**M.S. Integrated Science and Technology:** Chris Asprion, Robert Deeb, Ruby Everitt,

**M. S. Nursing:** Wendy Collins

**Ph.D. Nursing:** Beverly Bower, Patricia Catts, Elena Cauderes, Sherry Halfmann, Melinda Hiemenz, Robin Lockhart, Cheryl Rowder, Janeth Stiller, Louise Talley, Lisa Taylor

### **MEMBERSHIPS**

American Statistical Association

Phi Beta Kappa

Phi Kappa Phi

### **PROFESSIONAL SERVICE - EXTERNAL**

**Vice-Chair for District 5:** American Statistical Association Council of Chapters Governing Board, 2017 – 2019.

**Member:** Southern Regional Council on Statistics, 2014 – present

**Secretary:** Council of Texas Statistician, 2013 – present

**Member:** Council of Texas Statisticians, 2008 – present

**Article Referee:** *Journal of Biopharmaceutical Statistics*, 2010

**President:** Council of Texas Statisticians, 2009

**External Reviewer:** Promotion Application, Loyola University, 2009

**External Reviewer:** Tenure Application, Loyola University, 2009

**Article Referee:** *Journal of Biopharmaceutical Statistics*, 2009

**Article Referee:** *Journal of Biopharmaceutical Statistics*, 2009

**Article Referee:** *Model Assisted Statistics and Applications*, 2007-2008

**Article Referee:** *Journal of Applied Statistics*, 2007

**Judge:** Student Poster Competition, Conference of Texas Statisticians

**Book Reviewer:** Key College Publishing, 2006

**Prospectus Reviewer:** McGraw-Hill, 2005

**Article Referee:** *Pi Mu Epsilon Journal*, 2004

**Grant Reviewer:** Louisiana Quality in Science and Mathematics, 2004

**Volunteer:** T<sup>3</sup> Conference, 2004

**Judge:** Region 8 Science Fair, 2004

**Article Referee:** *Journal of Statistics Education*, 2003-2004

**Grant Reviewer:** Grant proposal review panel for the National Science Foundation's Instrumentation and Laboratory Improvement Program, July 2002

**Speaker:** TWU Access to Careers in the Sciences (ACES) Summer Camp, July 2001

**Referee:** The Journal of Statistics Education, March 2001, June 2001, October 2001

**Grant Reviewer:** U.S. Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE) – Comprehensive Program, February 2001

**Grant Reviewer:** National Institutes of Health's Minority Biomedical Research Support: Support of Continuous Research Excellence Program, September 2000

**Speaker:** TWU Access to Careers in the Sciences (ACES) Summer Camp, July 2000

**Session Chair:** International Biometric Society, Eastern North American Region Spring Meeting, March 2000

**Judge:** Eleventh Annual TWU Area Science Fair, March 2000

**Judge:** Dallas Independent School District Science Fair, February 2000

**Judge:** Denton Area Home School Science Fair, January 2000

**Judge:** Tenth Annual TWU Area Science Fair, March 1999

**Grant Reviewer:** Grant proposal review panel for the National Science Foundation's Instrumentation and Laboratory Improvement Program, January 1998

**Grant Reviewer:** Grant proposal review panel for the National Science Foundation's Instrumentation and Laboratory Improvement Program, February 1997

**Article Referee:** "Uniform Convergence of the T-Distribution," for The College Mathematics Journal, May 1996

**Panelist:** "Panel of Successful NKU Women," Take Your Daughter to Work Day, Northern Kentucky University, April 1996

**Speaker:** 1996 Northern Kentucky Student Congress, Northern Kentucky University, February 1996

**Judge:** Math Bowl 1996, Northern Kentucky University, January 1996