

KELLIE BLISS KEELING
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Daniels College of Business
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ACADEMIC EXPERIENCE

Assistant Professor, Advisor, Department of Statistics and Operations Technology, University of Denver, Denver, CO (9/07-present)

Assistant Professor, Department of Business Information Technology, Virginia Tech, Blacksburg, VA (8/99-8/07)

Visiting Professor, Department of Finance and Decision Science, Texas Christian University, Fort Worth, TX (8/98 - 5/99; 8/97-12/97)

Adjunct Professor, Division of Business, Wayland Baptist University, Plainview, TX (1/98-3/98; 1/97-3/97)

Teaching Fellow, Department of Business Computer Information Systems, University of North Texas, Denton, TX (6/98-7/98; 9/95-8/96)

PROFESSIONAL EXPERIENCE

Graduate Advisor, University of North Texas, Denton, TX (9/96-8/98)

Programmer, Computer Programming Resource, (Database, Integration of Software), Plainview, TX (6/92-6/98)

Coordinator of Institutional Research, Wayland Baptist University (6/94-8/95)

PC Specialist, President's Office, Wayland Baptist University (8/92-5/94)

AREAS OF SPECIALIZATION

Computer Simulation, Data Mining, Statistical Software Accuracy, Educational Research: Statistics and Simulation

EDUCATION

PhD Management Science, University of North Texas, Denton, TX, 1999

Minor Field: Business Computer Information Systems (15 hours)

Dissertation: **Developing Criteria for Extracting Principal Components and Assessing Multiple Significance Tests in Knowledge Discovery Applications**

MBA Management, Wayland Baptist University, Plainview, TX, 1994

Concentration: Business Information Systems (12 hours)

BS Mathematics, Summa Cum Laude, Wayland Baptist University, Plainview, TX, 1992

Minors: Computer Based Information Systems and English

BOOKS

Concise Managerial Statistics, Alan H. Kvanli, Robert J. Pavur, and Kellie B. Keeling (Mason, Ohio: South-Western, 2006, 2008 (e-book))

Introduction to Business Statistics: A Computer Integrated, Data Analysis Approach, Alan H. Kvanli, Robert J. Pavur, and Kellie B. Keeling, Sixth Edition (Mason, Ohio: South-Western, 2003.)

BOOKS EDITED/BOOK CHAPTERS

Report on the Year 2000 Problem: A Benchmarks and Status Study, Leon Kappelman and Kellie B. Keeling, In Leon Kappelman, *Year 2000: Strategies and Solutions from the Fortune 100*, editors: Leon Kappelman and Kellie B. Keeling (Boston: International Thomson Press, 1997.)

JOURNAL ARTICLES (Refereed)

- "Neural Network-based Simulation Metamodels for Predicting Probability Distributions," Christopher W. Zobel and Kellie B. Keeling, **Computers & Industrial Engineering**, Vol. 54, 2008, pp.879-888.
- "A Hybrid Grouping Genetic Algorithm for the Cell Formation Problem," Tabitha L. James, Evelyn C. Brown, Kellie B. Keeling, **Computers and Operations Research**, Vol. 34, No. 7, Jul 2007, pp. 2059-2079.
- "A Comparative Study of the Reliability of Nine Statistical Software Packages," Kellie B. Keeling and Robert J. Pavur, **Computational Statistics and Data Analysis**, Vol. 51, No. 8, 1 May 2007, pp. 3811-3831.
- "Cell Efficiency Measures and their Impact on Factory Measures for the Machine-Part Cell Formation Problem: A Simulation Study," Kellie B. Keeling, Evelyn C. Brown, Tabitha L. James, **Engineering Applications of Artificial Intelligence**, Vol. 20, No. 1, Feb 2007, pp. 63-78.
- "A Regression Equation Predicting 95th Percentile Eigenvalues for the Parallel Analysis Criterion in Principal Components Analysis," Kellie B. Keeling and Robert J. Pavur, **International Journal of Operations & Quantitative Management**, Vol. 11, No. 2, 2005, pp. 1-12.
- "A Comparison of Methods for Approximating the Mean Eigenvalues of a Random Matrix," Kellie B. Keeling and Robert J. Pavur, **Communications in Statistics: Simulation and Computation**, Vol. 33, No. 4, 2004, pp. 1-16.
- "A Regression Equation for Determining the Dimensionality of Data," Kellie B. Keeling, **Multivariate Behavioral Research**, Vol. 35, No. 4, 2000, pp 457-468.
- "Calculating the Cost of Year-2000 Compliance," Leon Kappelman, Darla Fent, Kellie B. Keeling and Victor Prybutok, **Communications of the ACM**, February, 1998, Vol. 41, No. 2, pp. 30-39.

PUBLISHED PROFESSIONAL PAPERS (Refereed)

- "Estimating the Future Rate Of Poisson Events After Removing Certain Variables: Applications to Software," Matthew Lindsey, Robert Pavur, Kellie Keeling, In Proceedings of the 2008 Annual Decision Sciences Institute Meeting (Baltimore, MD: 2008.)
- "An Introductory Data Mining Study Using SAS Enterprise Miner to Examine Missing Values," Kellie B. Keeling, **Proceedings of the 2007 Annual Southeast Decision Sciences Institute Meeting**, (Savannah, GA: 2007.)
- "Numerical Accuracy Issues in Using Excel for Simulation Studies," Kellie B. Keeling, Robert J. Pavur, **Proceedings of the 2004 Winter Simulation Conference** (Washington, D.C: 2004.)
- "Examining Numerical Accuracy of Excel 2003," Robert J. Pavur, Kellie B. Keeling, Frank Landram, **Proceedings of the 2004 Annual Decision Sciences Institute Meeting** (Boston, MA: 2004.)
- "Estimating Locations of Mean Shifts in the Change Point Problem: A Nonparametric Approach," Kellie B. Keeling, Robert J. Pavur, Joe H. Sullivan, **Proceedings of the 2001 Annual Decision Sciences Institute Meeting** (San Francisco, CA: 2001.)
- "Information Quality of Commercial Web Site Home Pages: An Explorative Analysis," Xiaoni Zhang, Kellie B. Keeling, and Robert J. Pavur, **Proceedings of the 2000 Annual International Conference on Information Systems Meeting** (Brisbane, QLD, Australia: 2000.)
- "Home Page, Sweet Home Page: An Exploratory Analysis of Web Information Quality Across Industries," Xiaoni Zhang, Kellie B. Keeling, and Robert J. Pavur, **Proceedings of the 2000 Annual Decision Sciences Institute Meeting** (Orlando, FL: 2000.)
- "Assessing the Impact of Different Versions of Nonparametric Procedures and a Proposed Simplified Implementation Using Excel," Robert J. Pavur and Kellie B. Keeling, **Proceedings of the 2000 Annual Southeast Decision Sciences Institute Meeting** (Wilmington, NC: 2000.)
- "A Regression Equation Predicting 95th Percentile Eigenvalues for the Parallel Analysis Criterion in Principal Components Analysis," Kellie B. Keeling and Robert J. Pavur, **Proceedings of the 1999 Annual Decision Sciences Institute Meeting** (New Orleans, LA: 1999.)
- "Examining Estimates of a Mixture of Beta Densities to Model Observed Significance Levels from Central and Non-Central t Distributions," Kellie B. Keeling and Robert J. Pavur, **Proceedings of the 1999 Annual Southwest Decision Sciences Institute Meeting** (Houston, TX: 1999.)
- "Relationships Between Cronbach's Reliability Estimate and Research Design Characteristics in Information Systems," Kellie B. Keeling and Robert J. Pavur, **Proceedings of the 1998 Annual Decision Sciences Institute Meeting** (Las Vegas, NV: 1998.)

PUBLISHED PROFESSIONAL PAPERS (Refereed) – CONTINUED

"An Investigation of Previous and Proposed Methodology For Obtaining Expected Values of Eigenvalues From a Sample Correlation Matrix," Kellie B. Keeling and Robert Pavur, *Proceedings of the 1998 Annual Southwest Decision Sciences Institute Meeting* (Dallas, TX: 1998.)

PUBLISHED PROFESSIONAL PAPERS (Nonrefereed)

"Determining the Future Rate of Poisson Random Variables after Removing Variables with Too Few or Too Many Occurrences," In *JSM Proceedings, Social Statistics Section, American Statistical Association*. (Washington, DC: 2009)

"Comparison of Methods to Generate Eigenvalues for Parallel Analysis," Kellie B. Keeling, Robert J. Pavur, In *JSM Proceedings, Social Statistics Section, American Statistical Association* (Denver, CO: 2008.)

INVITED ARTICLES (Nonrefereed)

"Capacity and Availability of Year 2000 Suppliers and Service Providers," Bob Cohen, Leon Kappelman, and Kellie B. Keeling, In Leon Kappelman, editor, *Year 2000 Update: Key Issues and Research Reports*, A white paper from the Society for Information Management (SIM) International, Chicago, 1998.

PAPERS PRESENTED AT PROFESSIONAL MEETINGS (Nonrefereed)

"Comparing Different Percentiles for Parallel Analysis Implementation," Kellie B. Keeling, *Proceedings of the 2009 Annual Southeast Sciences Institute Meeting* (Charleston, SC: 2009.)

"Cronbach's Reliability Alpha: 15 years of Information Systems, Marketing, and Management Literature," Kellie B. Keeling, Robert J. Pavur, **2008 National INFORMS Meeting** (Washington, DC: 2008.)

"Comparing Two Methods of Parallel Analysis Implementation," Kellie B. Keeling, *Proceedings of the 2008 Annual Southeast Decision Sciences Institute Meeting* (Orlando, FL: 2008.)

"Four Spreadsheet Packages: Is the Statistical Accuracy the Same?," Kellie Keeling and Robert Pavur, *Proceedings of the 2007 Annual Decision Sciences Institute Meeting* (Phoenix, AZ: 2007.)

"Extracting Principal Components Using Mathematical Programming," Kellie B. Keeling, Constantine Loucopoulos, and Robert Pavur, *2005 Annual Decision Sciences Institute Meeting* (San Francisco, CA: 2005.)

"Which Similarity Index Should One Use in Text Retrieval: A Literature Review," Kellie B. Keeling, *2003 Annual Decision Sciences Institute Meeting* (Washington, DC: 2003.)

"A Neural Networks Approach to Estimating Mean Values of Eigenvalues for a Random Matrix and Applications to Variable Subset Selection," Robert J. Pavur and Kellie B. Keeling, *1998 National INFORMS Meeting* (Seattle, WA: 1998.)

"Information Technology Acquisition and Impact," J.R. McQuaid, Jr., Kellie B. Keeling, and Susan E. Yager, *1998 National INFORMS Meeting* (Seattle, WA: 1998.)

"Year 2000 Problem Differences Between Health Care Providers & Other Organizations," Kellie B. Keeling, *1997 National INFORMS Meeting*, Invited Paper (Dallas, TX: 1997.)

ACADEMIC SERVICE

- Four Spreadsheet Packages: Is the Statistical Accuracy the Same? Research Brown Bag, 2/08

UNDER REVIEW

"Comparison of Programs to Generate Eigenvalues for Parallel Analysis, *International Journal of Operations and Quantitative Management*, March 2009

"Statistical Accuracy of Spreadsheet Software," *American Statistician*, Revision, September 2009

AWARDS AND GRANTS

- FRF Grant, Excel-based Program to Perform Parallel Analysis for Principal Components Analysis, \$1,017, Summer 2009
- Course release, Cronbach Alpha meta-analysis study, 2009-2010
- FRF Grant, Comparison of Eigenvalue Generation Programs for Parallel Analysis, \$1,842, 2008
- Summer Research Grant, Pamplin College of Business, Amount: \$9,000, 2005

JOURNAL ARTICLES (Refereed)

"Does Your iPod Have a Soul? The Generation of Random Numbers," Kellie B. Keeling, *Decision Sciences Journal of Innovative Education*, Vol. 5, No. 1, Jan 2007, pp. 169 – 177.

PUBLISHED PROFESSIONAL PAPERS (Refereed)

"Multimedia Files for Statistics Concepts used in a Simulation Course," Kellie B. Keeling, *Proceedings of the 2001 Annual Southeast Decision Sciences Institute Meeting* (Charlotte, NC: 2001).

INVITED ARTICLES (Nonrefereed)

"Responses from 12 Authors to the Article on 'Do Business Schools Have a Role in the Current Financial Crisis?'" *Decision Sciences Journal of Innovative Education*, Vol. 7, No. 2, July 2009, pp. 340-341.

PAPERS PRESENTED AT PROFESSIONAL MEETINGS (Nonrefereed)

"Computational and Graphical Insights into Leverage in Multiple Regression," Kellie B. Keeling, Constantine Loucopoulos, and Robert Pavur, *2006 Annual Decision Sciences Institute Meeting*, San Antonio, TX, November, 2006.

"Development of a Pretest for Studying Spreadsheet Use in Undergraduate Business Statistics at a Small, Private University," Gale Baker and Kellie B. Keeling, *1997 Annual Southwest Decision Sciences Institute Meeting*, New Orleans, LA, March, 1997.

OTHER PAPERS AND REPORTS (Refereed)

Newsletter Article: In the Classroom: "Simplified Procedure for Implementing Nonparametric Tests in Excel," *Decision Line*, Decision Sciences Institute, Dec/Jan 2002
Instructors Manual for Database Management Systems: Designing and Building Applications by Gerald V Post. Kellie B. Keeling and Kevin G. Keeling (Columbus, OH: McGraw-Hill, 1999.)

UNDER REVIEW

"Employing Introductory Statistics Students at "Stats Dairy," *Teaching Statistics*, February 2009

SOFTWARE (Excel and VBA)

OM Tools, Roberta S. Russell and Kellie B. Keeling (Hoboken, New Jersey: John Wiley and Sons, 2006, 2008.)

KPK Analysis Tools, Kellie B. Keeling and Robert J. Pavur (Mason, Ohio: South-Western, 2003, 2005, 2007.)

AWARDS AND GRANTS

- **C. Thomas Howard Endowed Teacher Scholar Award**, Daniels College of Business, May 2009
- **Faculty of the Year**, Alpha Kappa Psi, Professional Business Fraternity, Virginia Tech, 2007
- **Faculty Brother of the Month**, Oct. 2002, Sep. 2003, Sep 2004, Dec. 2005
- **Pamplin College of Business Teaching Excellence Award**, Virginia Tech, 2000-2001
- **University Certificate of Teaching Excellence**, Virginia Tech, 2001
- **Best Paper in Track: Education - Information Technology**, Southeast Decision Sciences Institute (SEDSI), 2001
- **ACITC Classroom Innovation Project Grant - Center for Excellence in Undergraduate Teaching (CEUT)**, 2001.
- **Instructional Enhancement Mini-grant - CEUT**, 2000, 2005

ACADEMIC/INSTRUCTION SERVICE

- Competing on Analytics, **Discoveries Lecture**, September 3, 2008
- **Advisor and Internship Supervisor**, Statistics Department, September 2008-present
- **Faculty Advisor**, Alpha Kappa Psi, 2006-2007
- **Faculty Brother**, Alpha Kappa Psi, 1999-2007
- **BIT Department Liaison**, Association for Women in Computing, 2005

PRESENTATIONS (Nonrefereed)

- Panel Member**, "Tools or Toys? Forum on Academic Uses of Recent Innovations," 2009 Annual Southeast Decision Sciences Institute Meeting, Charleston, SC, February, 2009.
- Panel Member**, "Discussion of Academic Support Products for Business Statistics Instruction," 2009 Annual Southeast Decision Sciences Institute Meeting, Charleston, SC, February, 2009.
- Panel Member**, "Making Statistics More Effective in Schools of Business: How Should We Teach Business Students in Introductory Statistics?" 2008 Annual Decision Sciences Institute Meeting, Baltimore, MD, November, 2008.
- Invited Presentation**, "Using a Tablet PC in the Statistics and Simulation Classrooms," 2008 National INFORMS Meeting, Invited Paper, Washington, DC, October, 2008.
- Panel Member**, "Important Issues for Statistics Instruction in Schools of Business," 2008 Annual Southeast Decision Sciences Institute Meeting, Orlando, FL, February, 2008.
- Panel Member**, "Challenges for the Future of Statistics in Schools of Business," 2007 Annual Decision Sciences Institute Meeting, Phoenix, AZ, November 2007.
- Panel Member**, "Facilitating Effective Learning in Introductory Statistics," 2006 Annual Decision Sciences Institute Meeting, San Antonio, TX, November 2006.
- Panel Member**, "Teaching with Technology at Virginia Tech," FDI Track A - New Faculty Computing Orientation, 8/10/2004, 8/16/2005
- Workshop**, "Teaching Effectiveness Workshop: Promoting Student Learning," 2005 Annual Southeast Decision Sciences Institute Meeting, Raleigh, NC, February 2005.
- Workshop**, "Doctoral Student/Junior Faculty Teaching Effectiveness Workshop: the Four P's of Teaching Effectively," 2004 Annual Southeast Decision Sciences Institute Meeting, Charleston, SC, February 2004.
- Workshop**, "Writing in your Business Course," Graduate Teaching Assistants, 8/20/2003
- Workshop**, "Macromedia Flash Movies as a Course Tool," 2002 Annual Southeast Decision Sciences Institute Meeting, Hilton Head, SC, February 2002.

INSTRUCTION**University of Denver**

- STAT 1400 – Statistics II
- STAT 2800 – Survey of Ops Management

Courses Developed

- STAT 3700 – Sports Statistics (with Tom Obremski)

Independent Studies

- STAT 3991 – IS: Chemistry Admissions Modeling
- STAT 3991 – IS: Business Analytics (2 students)

Courses with Significant Development

- STAT 3880/4880 – Data Mining I
- STAT 3709/4709 – Computer Simulation

Internships Supervised

- Aaron Carmack – Winter 2009
- Fallon Dubose – Winter 2009
- Christina Pryor – Spring 2009

Virginia Tech

- BIT 4434 – Computer Simulation for Business
- BIT 5974 – Simulation Doctoral Seminar
- BIT 4994 – Simulation Modeling of a Supply Chain (Undergraduate Research)
- BIT 4994 – Simulation Modeling of a Call Center (Undergraduate Research)
- BIT 4974 – IS: Intro. to Macromedia Flash
- BIT 2405 – Quantitative Methods I

Texas Christian University

- DESC 3153 – Operations Management
- DESC 2153 – Statistical Analysis

Wayland Baptist University

- MISM 4340/4340G – Visual Business Communication
- MISM 4316/5316 – LAN Construction and Management

University of North Texas

- MSCI 3700 – Statistical Analysis I
- MSCI 3710 – Statistical Analysis II

SELECTED TEACHING PROFESSIONAL ACHIEVEMENT ACTIVITIES**Instructional Skills Workshops/Courses**

GAISEing Beyond the Crossroads: Improving Instruction in Introductory Statistics, CAUSE
 (Consortium for the Advancement of Und. Stat. Education) Summer Institute, July 6-10, 2009

Best Practices for Learning Teams, Daniels Learning Effectiveness Workshop, 3/6/2009

Blogs for Teaching and Scholarship, CTL workshop, 2/13/2009

Building an Effective Syllabus, Daniels Learning Effectiveness Workshop, 5/16/2008

Teaching Effectiveness Colloquium, INFORMS, 11/2/2007

Integrating Grading & Course Design, CTL workshop, 9/21/2007

Diversity, CTL workshop, 10/5/2007

Teaching, Scholarship and Ethical Issues, CTL workshop, 10/12/2007

Critical Thinking Workgroup, CEUT Study Group, Weekly Meetings, fall 2005

University Writing Program, May 21-25, 2001

Applied Instructional Design, FDI summer workshop Track G, May 22-25, 2000

26 Additional, 1995-2007

Teaching Technology Workshops/Courses

Summer Program for Educators Teaching Data Mining (2.7 CEUs) (Courses: SAS Programming Essentials for Educators II, Advanced Predictive Modeling Using SAS Enterprise Miner 5, Mining Textual Data Using SAS Text Miner for SAS9) SAS Institute, Cary, NC, July 21-25, 2008

Basic and Modeling Techniques with ExtendSim, March 31-April 4, 2008

SQL Processing with SAS (1.2 CEUs), SAS Institute, Cary, NC, July 20-21, 2006

Text Mining (2 CEUs), statistics.com, June 23 - July 21, 2006

Summer Program for Educators Teaching Data Mining (3.6 CEUs) (Courses: Applying Data Mining Techniques Using SAS Enterprise Miner, Predictive Modeling using SAS Enterprise Miner 5.1) SAS Institute, Cary, NC, June 26-30, 2006

10 Additional, 1997-2004

SELECTED PROFESSIONAL SERVICE

- **VP – Planning & Development**, Southeast Decision Sciences Institute (SEDSI), 2009-2010
- **Website Editor**, INFORMS-ED, 2008-09
- **VP – Member Services**, SEDSI, 2006-08
- **VP – Student Liaison**, SEDSI, 2005-06
- **Secretary**, SEDSI, 2002-03
- **Book Reviewer**, *Computer Simulation - Applying Theory to Build Credible Models and Gather Valid Results*, Book proposal, Addison-Wesley, March 2003
- **Book Reviewer**, *Simulation Using ProModel*, 2nd Edition, Mc-Graw Hill, Aug.2002
- **Book Reviewer**, *Introduction to Simulation and Risk Analysis*, James R. Evans, David L. Olson, Pre-revision review, Prentice Hall, April 2000
- **Journal Reviewer**, *Applied Psychological Measurement*, 2002-present
- **Journal Reviewer**, *Decision Sciences Journal of Innovative Education*, 2006-present
- **Journal Reviewer**, *INFORMS Transactions on Education*, 2008
- **Journal Reviewer**, *Computational Statistics and Data Analysis*, 2008
- **Outside Tenure Reviewer**, University of South Carolina, Aiken, Sep. 2006
- **Track Co-Chair**, DSI, Innovative Education, 2007; DSI, Statistics, 2008
- **Track Chair**, Student Paper Track, SEDSI, 2006; Statistics, SEDSI, 2009
- **Session Chair**, SEDSI, 2002, 2004, 2006, 2009; INFORMS, 2008; ASA, 2009
- **Reviewer**, SEDSI, 2000-2009; SWDSI, 2003; DSI, 2000, 2004, 2007-2009
- **Discussant**, SEDSI, 2002, 2005, 2007-2009
- **Session Organizer**, "Teaching Tricks for Quantitative Analysis," SEDSI, 2009

ACADEMIC SERVICE

- **Newsletter Editor**, Statistics Department, October 2008 – present
- **Web Editor**, Statistics Department, August 2008 – present

CONSULTING

Charter Growth Fund, Broomfield, CO, **Re-calibrating Achievement Gap Regression Analysis Model**, 2009

Rocky Mountain BBQ Association, **Smoothing of Contest Scores to Determine Season Winner**, 2009

ACADEMIC SERVICE

- **Microsoft Certification Coordinator**, Statistics Department, January 2009-present
- **GPA Requirement for Daniels Study**, Spring 2009
- **Daniels Undergraduate Programs Committee**, September 2007-present
- **ETS Assessment Committee**, 2008

CONSULTING

Biology Department, Anna Sher, **Affect of Biocontrol Beetle Density Introduction on Terrestrial Arthropod Populations**, 2009