Executive Summary Statistics Department 2005-2006

Discovery (13.04 Tenured of Tenure-track Faculty, 3 Instructors, 1 Post-Doc, 1 Research Scientist)
- Appeared: 1 textbook, 32 peer-reviewed journal articles.
- In press: 28 peer-reviewed articles and 1 textbook.
- Faculty Presentations: 2 Invited International, 11 Invited National, 4 Contributed National.
- One Newly Elected Fellow of the Institute of Mathematical Statistics
- One Newly Elected Member of the International Statistical Institute
- Ten Fellows of the American Statistical Association (Five Current Faculty, Five Emeritus Faculty)
- Two Fellows of the American Society for Quality (Both Current Faculty)
- Two Past Editors of a Major Statistical Journal (*Journal of Quality Technology*)
- Eleven Associate Editorships/Editorial Board Memberships Held of Major Journals by Eight Faculty Members
- Research Expenditures: $133,466 FY (2004-05)
- Allocated Research Awards: $162,392

Graduate Education
- Number of Graduate Students:
  - Spring 2005: 44 (18 M.S., 26 Ph.D.)
  - Fall 2005: 56 (26 M.S., 30 Ph.D.)
- Number of Ph.D. Awarded:
  - Spring 2005: 2
  - Fall 2005: 4
- Number of M.S. Awarded:
  - Spring 2005: 6
  - Fall 2005: 7
- Ten Graduate Presentations at National Meetings
- Seven Corporate Partners (Program Enhances Graduate Assistantships and Provides Practical Internships): Minitab, Eli Lilly, General Electric, DuPont, Kraft, Pratt & Whitney, SAS

Undergraduate Education
- Number of Undergraduate Majors:
  - Spring 2005: 41
  - Fall 2005: 38
- Number B.S. Awarded Spring 2005: 8
- Number B.S. Awarded Fall 2005: 3

Service
- Service on Nine Major National/International Committees
- 104 Billable Hours of Faculty Consulting and 382 Billable Hours of Graduate Student Consulting within the University through the Consulting Center
I. LEARNING

Graduate Student Presentations at National Meetings


II. DISCOVERY

Books, Appeared in 2005


Papers, Appeared in 2005

Bing, N. and Hoeschele, I. (2005), Genetical genomics analysis of a yeast segregant population for transcription network inference, Genetics, 170, 533-542.

Bing, N., Hoeschele, I., Ye, K., and Eilertsen, K.J. (2005), Finite mixture model analysis of microarray expression data on samples of uncertain biological type with application to reproductive efficiency, Veterinary Immunology and Immunopathology, 105, 187-196.


Books, In Press in 2005


Papers, In Press in 2005


Cao, J. and He, C.Z. (2006), Bayesian Estimation of Age-specific Nest Survival Rates with Categorical Covariates. Environmental and Ecological Statistics.


Peterson, Brennan D.; Newton, Christopher R.; Rosen, Karen H.; Schulman, Robert S. Coping Processes of Couples Experiencing Infertility. Accepted by Family Relations.


Woodall, W. H. (2006). Use of Control Charts in Health Care Monitoring and Public Health Surveillance (with discussion by David Spiegelhalter and Olivia Grigg, University of Cambridge; James Benneyan, Northeastern University and Institute for Healthcare Improvement; M.A. Mohammed, University Hospital of Birmingham, UK; Stefan Steiner, University of Waterloo; Howard Burkom, Johns Hopkins University; James M.

**Faculty Presentations**

*Invited International*


*Invited National*


Multivariate Monitoring of the Process Mean Vector With Sequential Sampling. Invited presentation in the *Journal of Quality Technology*-sponsored session at the INFORMS Annual Meeting, San Francisco, California, November 2005 by **Reynolds, M.R., Jr.**, co-authored with Kim, K.

``Objective Bayesian Analysis for Spatial-Temporal Models." The Fifth International Workshop on Objective Bayesian Methods, Branson, USA, June 4-9, 2005 by **D. Sun**


Contributed National


“Perspectives on high-dimensional inference in functional data analysis.” Joint Statistical Meetings in Minneapolis, MN, August 2005 by Spitzner, D. J.

“Elementary Chis Squared” Joint Statistical Meetings, Minneapolis, Minnesota, August 10, 2005 by Terrell, G.R.,

Grants (new):

Grant from German Academic Exchange Organization (DAAD) to support a postdoctoral exchange fellow in my lab from November 2005 through March 2006 to Kathrin Friederike Stock with support for Distl and Hoeschele.

Missouri Department of Conservation, “WinBUGs Application in Hunting Survey,” Amount: Direct cost of $104,100 plus tuition and indirect cost, 07/01/2005--06/30/2008, PI: D. Sun


Grants (continuing):


Proposal(s) (declined):


Proposals Pending

Arterial Stiffness and the Metabolic Syndrome in Older Adults. Submitted to NIH. Principle Investigator: Davy, Kevin. Robert S. Schulman listed as Co-Investigator, to be funded for 8% of salary per year.

12/01/2006-11/30/2009: National Cancer Institute of NIH (R01 CA109675); Spatial, Temporal, Social Disparities in Breast Cancer. Total requested $800,000. PI: Schootman (Washington University). Portion at VT and Univ. of Missouri: $379,102 (Co-PIs: P.L. Speckman and D. Sun). 1.5 months/year for Sun, 1 month/year for P. Speckman and a 50% research assistant.

07/01/2006-06/30/2009: PI. Waterfowl harvest survey small area estimation, Missouri Department of Conservation, direct cost of $145,000.
III. ENGAGEMENT

Corporate Partners Program

Seven Members in 2005:

- Du Pont
- Eli Lilly & Co.
- General Electric
- Kraft Foods
- Minitab
- Pratt & Whitney
- SAS

Co-Sponsor, Fifth International Symposium on Business and Industrial Statistics, January 2006, Lima, Perú (Logistical support in 2005)
IV. DIVERSITY

“Graduate School in Statistics”. Presented at the STATFEST Conference in Peal City, Hawaii, March 5, 2005. Invited talk by Jeff Birch.

Recruited one graduate student from Morehouse College.
V. SERVICE

Associate Editors/Members of Editorial Review Boards

Susanne Aref, Editorial Review Board, *Journal of Biological Agriculture & Horticulture*


Ina Hoeschele, Associate Editor, *Genetics, Selection, Evolution*

Ina Hoeschele, Associate Editor, *Biometrics*

J.P. Morgan, Associate Editor, *Journal of Statistical Planning and Inference.*

Marion Reynolds, Editorial Review Board, *Journal of Quality Technology*

Marion Reynolds, Associate Editor, *IIE Transactions*

Eric Smith, Associate Editor, *Environmetrics*

Eric Smith, Associate Editor, *Journal of Agricultural, Biological, and Environmental Statistics*

George Terrell, Associate Editor, *Journal of Computational and Graphical Statistics*

Geoff Vining, Editorial Review Board, *Journal of Quality Technology*

Bill Woodall, Editorial Review Board, *Journal of Quality Technology*

Major National/International Society Service


Golde Holtzman, Secretary-Treasurer, Mu Sigma Rho National Honorary Society.

Marion Reynolds, Member of the Advisory Board of the Quality, Statistics, and Reliability Section of The Institute for Operations Research and the Management Sciences

Dongchu Sun, Chair of Organizers and Program Committee, Fifth International Workshop on Objective Bayesian Methods, Branson, USA, June 4-9, 2005
Geoff Vining, Chair, Statistics Division, American Society for Quality

Geoff Vining, Chair, Publications Management Board, American Society for Quality

Geoff Vining, General Conference Chair, Fifth International Symposium on Business and Industrial Statistics, Lima, Perú, January 2006.

Bill Woodall, Member, ASA Deming Lecturer Committee

Bill Woodall, Member, Shewhart Medal Committee, American Society for Quality

Panel Service

Ina Hoeschele, Member of joint NSF/NIGMS Mathematical Biology review panel (September 2005)

University, College, and Department Service

Susanne Aref

Director, Statistical Consulting Center

Conducted FDI workshops, four 2-hr workshops in spring, a 3-day workshop in summer, two 2-hour workshops in Fall.

ADVANCE work-group member

Sam Bates Prins

Chair, Communications Committee.

Computing Committee

College of Science Website Review Committee

Jeff Birch

Director of Graduate Programs

Chair, Teaching Evaluation Committee, 2000-present.

Chair, Graduate Committee, 2001-present.
Member, Advisory Committee, 2001-present.

Coordinator for STAT 3005-3006

Faculty advisor, Mu Sigma Rho. (National Statistics Honor Society) 1991-present

Mike Box
Department’s Systems Administrator

Leigh Harrell
Undergraduate Co-ordinator

Member, College of Science Curriculum Committee

Ina Hoeschele
VBI annual research symposium committee
Search committee, Department of Statistics
Steering and admissions committees of GBCB Ph.D. program
Reviewer (entire faculty) of faculty application to VBI

Golde Holtzman
Corporate Partners Program Committee, chair (2000-2006)

J.P. Morgan
Chair, Personnel Committee, Department of Statistics
Search Chair, Department of Statistics
Graduate Committee, Department of Statistics

Bob Schulman
Consulting Committee
Policy/Procedures Committee
Qualifying Examination Committee
Teaching Evaluation Committee
Undergraduate Committee
Coordinator for STAT 3604, 5615, 5616, 5634, 5665, 5666

*Marion Reynolds*

Personnel Committee
Cluster Hiring Search Committee
Computing Committee
Qualifying Exam Committee
Policy/Procedures Committee
College of Science Honorifics Committee

*Dan Spitzner*

Chair, Colloquium Committee

*Dongchu Sun*

Personnel Committee, College of Science

*Geoff Vining*

Department Head

*Bill Woodall*

College Cluster Hiring Committee
College of Science Dean Search Committee
Departmental Personnel Committee
Departmental Graduate Committee
Departmental Corporate Partners Committee (with responsibility for organizing the Student Research Seminar)
VI. HONORS AND AWARDS

Fellows of the American Statistical Association

Active Faculty

Marion Reynolds
Eric Smith
Geoff Vining
Bill Woodall

Emeritus Faculty

Jesse Arnold
I.J. Good
Klaus Hinkelmann
Dick Krutchkoff
Ray Myers

Fellows of the American Society for Quality

Geoff Vining
Bill Woodall

Fellow of the Institute of Mathematical Statistics

Dongchu Sun

Elected Members, International Statistics Institute

Marion Reynolds
Eric Smith
Dongchu Sun
Geoff Vining
Bill Woodall

Sam Bates Prins, 2004-2005 Statistics Club Professor of the Year