

Laura H. Gunn

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Education

DUKE UNIVERSITY Durham, NC
Ph.D. in Statistics and Decision Sciences, September 2004
Advisors: David B. Dunson, Ph.D. and Dalene K. Stangl, Ph.D.

M.S. in Statistics and Decision Sciences, May 2001

JACKSONVILLE UNIVERSITY Jacksonville, FL
B.A. in Mathematics, May 1999
Magna Cum Laude, Departmental Honors in Mathematics, French minor

Work Experience

GEORGIA SOUTHERN UNIVERSITY Statesboro, GA
Assistant Professor of Biostatistics,
Jiann-Ping Hsu College of Public Health, August 2004 - present

NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES Research Triangle Park, NC
Intramural Research Training Assistant Fellowship,
Biostatistics Branch, January 2003 - July 2004

DUKE UNIVERSITY, INSTITUTE OF STATISTICS AND DECISION SCIENCES Durham, NC

Teaching: Summer Semester Instructor:

- *Data Analysis and Statistical Inference*, 2002
- *Introduction to Biostatistics*, 2001
- *Statistics and Data Analysis for the Social Sciences*, 2000

Head Teaching Assistant

- oversee performance of all statistics TAs, serve as a liaison between TAs and faculty, organize help sessions for undergraduates, create a "TA Resources" webpage, containing data sets, statistical applets, etc.

Teaching Assistant:

- *Introduction to Statistical Methods* (graduate course); Fall 2001, 2002
- *Linear Models* (graduate course); Spring 2002
- *Statistics and Data Analysis* (undergraduate course for Economics and Public Policy majors); Fall 1999, Spring 2000

Consulting: Duke Medical Urology Clinic, Dr. Elizabeth Miller, Fall 2000

Work Experience (continued)

JACKSONVILLE UNIVERSITY, MATHEMATICS CENTER
Mathematics and statistics tutor for undergraduates, 1996
Jacksonville, FL

AMERICAN HERITAGE LIFE INSURANCE
Assistant Actuary summer internship, 1998
Jacksonville, FL

Research

GEORGIA SOUTHERN UNIVERSITY, COLLEGE OF PUBLIC HEALTH
Project: *The utility of the health belief model in predicting dietary risk among female university students*,
- advising student on M.P.H. thesis, October 2005 - present
Project: *Body dissatisfaction and other sociocultural factors as predictors of body image and body dissatisfaction in sorority and non-sorority females*,
- advising student on M.P.H. thesis, June 2005 - present
Project: *A comparison of breast-feeding trends in the United States and India*,
- joint work with Padmini Shankar, Ph.D., Diana Sturges, M.D., and Stuart Tedders, Ph.D., May 2005 - present
Project: *Early initiation of sexual intercourse and its relationship to other health-risk behaviors in U.S. high school students*,
- advising student on M.P.H. thesis, March 2005 - present
Project: *Perceived threat of HIV/AIDS between men who have sex with men and heterosexual males*,
- advising student on M.P.H. thesis, October 2004 - present
Statesboro, GA

DUKE UNIVERSITY, INSTITUTE OF STATISTICS AND DECISION SCIENCES
Project: *Bayesian methods for assessing ordering in hazard functions applied to toxicology data*,
- part of Ph.D. thesis, September 2003 - June 2004
Project: *Bayesian inferences on shape constraints using an isotonic transformation approach applied to reproductive hormone data*,
- part of Ph.D. thesis, October 2002 - February 2004
Project: *Bayesian hierarchical modeling applied to AIDS data*,
- preliminary research with Dalene K. Stangl, Ph.D. and Kathryn Whetten, Ph.D., Fall 2000 - Summer 2001
Durham, NC

JACKSONVILLE UNIVERSITY
Project: *Mathematics and the Search for a Cure for AIDS*,
Departmental Honors thesis, Fall 1998 - Spring 1999
Jacksonville, FL

DUKE UNIVERSITY, DEPARTMENT OF MATHEMATICS
Project: *National Science Foundation's Summer Workshop in Mathematical Biology*, 1998
Durham, NC

Research (continued)

CARLETON AND ST. OLAF COLLEGES
Project: *National Science Foundation's Summer Mathematics
Program for Women*, 1997
Northfield, MN

Publications

- 1) Dunson, D.B., Holloman, C., Calder, C., and Gunn, L.H. (2004) Bayesian Modeling of Multiple Lesion Onset and Growth from Interval-Censored Data. *Biometrics*, **60**, 676-683.
- 2) Gunn, L.H. and Dunson, D.B. (2005) A Transformation Approach for Incorporating Monotone or Unimodal Constraints. *Biostatistics*, **6**, 3, 434-449.
- 3) Gunn, L.H. and Dunson, D.B. Bayesian Methods for Assessing Ordering in Hazard Functions. *submitted*.
- 4) Romanchik-Cerpovicz, J., Costantino, A., and Gunn, L.H. (2006) Sensory Evaluation Ratings and Melting Characteristics Show that Okra Gum is an Acceptable Milk-fat Ingredient Substitute in Chocolate Frozen Dairy Dessert. *Journal of the American Dietetic Association*. *in press*.
- 5) Joyner, B.A., Tedders, S., Gunn, L.H., and Carter, D.R. Factors Associated with Being Overweight in Georgia School Children. *to be submitted*.
- 6) Cleveland, T., Graf, H., and Gunn, L.H. Perceived Threat of HIV/AIDS between Men Who Have Sex with Men and Heterosexual Males. *to be submitted*.

Presentations

WORKSHOP ON MATHEMATICAL TOOLS & STATISTICAL TECHNIQUES FOR
QUANTITATIVE MEDICAL DATA ANALYSIS
- *Bayesian Methods for Assessing Ordering in Hazard Functions*,
October 2005
East Tennessee State University; Johnson City, TN

UNIVERSITY OF GEORGIA, DEPARTMENT OF STATISTICS
- Invited Talk: *Bayesian Methods for Assessing Ordering in
Hazard Functions*, September 2005
Athens, GA

JOINT STATISTICAL MEETINGS
- Invited Talk: *Bayesian Methods for Assessing Ordering in
Hazard Functions*, August 2005
Minneapolis, MN

GEORGIA SOUTHERN UNIVERSITY, NEW FACULTY ORIENTATION
- *Office Hours*, August 2005
Statesboro, GA

Presentations (continued)

JACKSONVILLE UNIVERSITY, DEPARTMENT OF MATHEMATICS

- Invited Talk: *Real Problems Call for Statistical Solutions*,
Mathematics Society Meeting, April 2005

- Invited Guest: *Pi Mu Epsilon National Mathematics Honor
Society Banquet*, April 2005

Jacksonville, FL

UNIVERSITY OF NORTH FLORIDA, DEPARTMENT OF MATHEMATICS & STATISTICS

- Invited Talk: *Bayesian Inferences on Shape Constrained Hormone
Trajectories in the Menstrual Cycle*, January 2004

Jacksonville, FL

GEORGIA SOUTHERN UNIVERSITY, SCHOOL OF PUBLIC HEALTH

- Invited Talk: *Bayesian Inferences on Shape Constrained Hormone
Trajectories in the Menstrual Cycle*, January 2004

Statesboro, GA

CONNECTICUT COLLEGE, DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE

- Invited Talk: *Bayesian Inferences on Shape Constrained Hormone
Trajectories in the Menstrual Cycle*, December 2003

New London, CT

HIGH POINT UNIVERSITY, DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE

- Invited Talk: *Bayesian Inferences on Shape Constrained Hormone
Trajectories in the Menstrual Cycle*, December 2003

High Point, NC

INTERNATIONAL BIOMETRIC SOCIETY, EASTERN NORTH AMERICAN REGION

- Invited Talk: *Bayesian Methods for Assessing Ordering in
Hazard Functions*, March 2005

Austin, TX

- *Bayesian Inferences on Shape Constrained Hormone Trajectories
in the Menstrual Cycle*, April 2003

Tampa, FL

- *A Bayesian Approach to Modeling the Proportion of HIV/AIDS
Patients Prescribed Aggressive Care*, March 2002

Washington, D.C.

DUKE UNIVERSITY

Durham, NC

Guest Lecturer:

- *Bayesian Methods for Assessing Ordering in Hazard Functions*,
in *Readings in Statistical Science* (graduate course), April 2004

- *Generalized Linear Models* (graduate course), September 2003

- *Data Analysis & Statistical Inference* (undergraduate course), August,
September 2003

- *Bayesian Inferences on Shape Constrained Hormone Trajectories in the
Menstrual Cycle*, in *Readings in Statistical Science* (graduate course),
April 2003

- *Introduction to Statistical Methods* (graduate course), November 2001

- *A Bayesian Approach to Modeling the Proportion of HIV/AIDS Patients
Prescribed Aggressive Care*, in *Readings in Statistical Science*, October 2001

Presentations (continued)

- *Statistics & Data Analysis for Policy Makers* (graduate course), February 2001
- *Biostatistics* (undergraduate course), January 2001

JACKSONVILLE UNIVERSITY

Jacksonville, FL

Undergraduate Research Symposium on thesis topic, awarded
Outstanding Presenter, April 1999

MATHEMATICAL ASSOCIATION OF AMERICA, FLORIDA SECTION

Florida State University; Tallahassee, FL

Determination of Optimum Time for Selling a Farm Animal, March 1997

Professional Organizations

- *Bayesians Worldwide*, 2005 - present
- *Graduate Faculty, Georgia Southern University*, 2004 - present
- *American Statistical Association*, 2004 - present
- *ENAR (Eastern North American Region of the International Biometric Society)*, 2003 - present
- *Institute of Mathematical Statistics*, 2001 - present
- *Phi Kappa Phi National Honor Society*, 1997 - present

Computing

Operating systems: UNIX, Windows, KDE
Programming languages: C, S-Plus, R, SAS
Document preparation: Latex, Microsoft Office
Additional: JMP IN, WinBugs, SPSS, Powerpoint

Awards/Honors

- *2005 Faculty Development Summer Award Grant* (funded), Summer 2005
- *National Science Foundation Travel Award* to attend Joint Mathematics Meetings, 2004
- *Empire Who's Who*, 2004
- *American Statistical Association's Section on Risk Analysis*, nominated for Secretary/Treasurer, November 2004
- *Georgia Southern University Professional Travel Grant* to attend ENAR (Eastern North American Region of the International Biometric Society), October 2004
- *Phi Kappa Phi* Graduate Fellowship and Life Membership Award, 1999
- *Phi Beta Kappa* Alumni Association Fellowship, 1999
- *Outstanding Student for the Division of Math and Science*, Jacksonville University, 1999
- *Outstanding Student in Mathematics Award*, Jacksonville University, 1997
- *Who's Who Among Students in American Universities and Colleges*, 1998
- *Pi Mu Epsilon*, National Mathematics Honor Society, assisted in starting a chapter at Jacksonville University, 1996; chapter President, 1997; Vice President, 1998

Additional Activities

- Peer reviewer of college professor's instruction, October 2005
- Georgia Southern University representative for the *Southern Regional Council on Statistics (SRCOS) Annual Business Meeting*, October 2005
- Search committee for Epidemiologist, Health Services Administrator, Environmental Health Scientist, & Community Health Professional, October 2005 - present
- Chair of JSM session on *Bayes & Empirical Bayes Approaches for Large-Scale Simultaneous Hypothesis Testing*, August 2005
- Scholarship committee to select recipients of Graduate Scholarships, July 2005
- *School of Public Health Task Force*, May 2005 - present
- Spring Graduation Reader (of graduates' names) for the College of Health & Human Sciences, May 2005
- Attended *Innovative Teaching Strategies Workshop*, May 2005
- Search committee for Sports Psychologist, May - June 2005
- Attended (& sponsored student research) at the *Phi Kappa Phi Symposium*, April 2005
- Attended (& sponsored student research) at the *Graduate Scholarship Day Poster Session*, April 2005
- Public Health representative for Statesboro's Relay for Life, April 2005
- Attended *Seventh Annual Undergraduate Research Poster Presentations* for the School of Public Health, April 2005
- Invited guest for the *Student Leadership Awards Recognition Banquet*, April 2005
- Attended Department of Mathematical Sciences *Distinguished Lecture, Carl de Boer*, April 2005
- Chair of ENAR session on *Toxicology & Risk*, March 2005
- Submitted *Student Technology Fee Grant* (not funded), February 2005
- Represented Biostatistics at *Honors Day* (i.e., recruiting honor students from regional universities), February 2005
- Program Director of Biostatistics, January 2005 - present
- Consulting services for on-campus departments, January 2005 - present
- Advise M.P.H. students with emphasis in Biostatistics, December 2004 - present
- Organizing committee, moderator, and attendee, BASS (Biopharmaceutical Applied Statistics Symposium), November 2004 & 2005
- Attended BASS XI short course *A View of Data Mining: Recursive Partitioning and Multiple Testing*, November 2004
- Serve on thesis committees for five M.P.H. students, October 2004 - present
- Search committee for Associate/Full Professor of Epidemiology, September 2004 - February 2005
- Attended *Fries Lecture: Health Care Administration: Today's Decisions for Tomorrow's Challenges*, September 2004
- Attended regular/weekly CET (Center for Excellence in Teaching) workshops, August 2004 - April 2005
- Attended *Academic Advising Workshop*, August 2005
- Organized sessions on *Bayes & Empirical Bayes Approaches for Large-Scale Simultaneous Hypothesis Testing and Isotonic Methods in Toxicology & Risk* for the 2005 Joint Statistical Meetings, June 2004 - August 2005
- Organized session on *Isotonic Methods in Toxicology & Risk* for 2005 ENAR Spring meeting, June 2004 - March 2005

Additional Activities (continued)

- Attended weekly statistics departmental colloquia, Duke University, 1999-2004
- Organized teaching section of ISDS Teaching Assistant Retreat, Duke University, 2002 & 2003
- *Graduate Consulting Committee*, ISDS, Duke University, 2000 - 2002
- Volunteer at Duke University Children's Health Center, 2002 - 2003
- Summer Math Camp instructor for fourth - sixth grade students, 1999
- Participant in the national *Mathematics Competition in Modeling*, 1997 - 1999
- Creator and editor of *Math Madness*, the student newsletter of the Jacksonville University Mathematics Society, 1997 - 1998
- High School Calculus intern instructor, 1997
- Assisted with the "Science, Math, and Engineering Day" at Jacksonville University, an enrichment day program/competition for area high school students, 1996 - 1997
- *Phi Sigma Iota*, National Foreign Language Honor Society, President, 1996 - 1997; Vice President, 1998
- *The Navigator*, Jacksonville University's student newspaper, writer, 1995 - 1996; assistant sales manager, 1996